

MILITARY REVIEW

VOLUME XXXIV

JANUARY 1955

NUMBER 10

CONTENTS

SECRETARY OF THE GENERAL STAFF OR SUPER-STAFF?	3
<i>Lieutenant Colonel Earl W. Edwards, Infantry, and</i>	
<i>Lieutenant Colonel Thomas A. Kenan, Infantry</i>	
THE DIPLOMAT'S AREA OF DECISION	8
<i>William P. Cochran, Jr.</i>	
HARNESS THE REVOLUTION	13
<i>Major John H. Cushman, Infantry</i>	
THE AIMS OF THE SOVIET UNION	19
<i>Lieutenant Colonel M. L. Crosthwait,</i>	
<i>Royal Engineers, British Army</i>	
IMPACT OF ATOMIC WARFARE ON AIRBORNE OPERATIONS	25
<i>Lieutenant Colonel Norman E. Martin, Artillery</i>	
PSYCHOLOGY AND LEADERSHIP	32
<i>Major John H. Burns, Infantry, Deceased</i>	
THE HEART OF THE MATTER	59
<i>Captain Herbert Avedon, Signal Corps</i>	
MILITARY NOTES AROUND THE WORLD	63
FOREIGN MILITARY DIGESTS	73
<i>Infantry in Modern Battle</i>	
<i>Waging a Cold War</i>	
<i>The Soviet Concept of National Defense</i>	
<i>Jungle Training Without Trees</i>	
<i>India and Her Neighbors—A Geopolitical Interpretation</i>	
BOOKS OF INTEREST TO THE MILITARY READER	110

This copy is not for sale. It is intended for more than one reader.
PLEASE READ IT AND PASS IT ALONG

MILITARY REVIEW STAFF

EDITOR IN CHIEF

LIEUTENANT COLONEL DONALD L. DURFEE

NORTH AMERICAN EDITION

Editor: LIEUTENANT COLONEL GREY DRESSER

Assistant Editor: MAJOR JOHN J. EARLEY

SPANISH-AMERICAN EDITION

Editor: MAJOR GILBERTO GONZÁLEZ-JULIÁ

Assistant Editors: CAPTAIN ANTONIO V. MUNERA, CAPTAIN TOMÁS H. GUFFAIN

BRAZILIAN EDITION

Editor: MAJOR SÉRGIO A. PIRES, *Brazilian Army*

Assistant Editor: MAJOR HÉLIO FREIRE, *Brazilian Army*

Administrative Officer

MAJOR LINO BONUCCI

Production Officer

MAJOR JAMES A. TRENT

The printing of this publication has been approved by
the Director of the Bureau of the Budget 2 July 1953.

MILITARY REVIEW—Published monthly by the Command and General Staff College at Fort Leavenworth, Kansas, in the English, Spanish, and Portuguese languages. Entered as second-class matter August 31, 1934, at the Post Office at Fort Leavenworth, Kansas, under the Act of March 3, 1879. Subscription rates: \$3.50 (United States currency) a year in the United States and other countries of the Western Hemisphere: \$4.50 a year in all other countries. Individual reprints, except for copyrighted material, are authorized, provided credit is given the "MILITARY REVIEW," Command and General Staff College, Fort Leavenworth, Kansas.

Secretary of the General Staff Or Super-Staff?

Lieutenant Colonel Earl W. Edwards, *Infantry*, and
Lieutenant Colonel Thomas A. Kenan, *Infantry*

The views expressed in this article are the author's and are not necessarily those of the Department of the Army or the Command and General Staff College.—The Editor.

OVER a period of years there has developed in the United States Army the organizational concept of the Secretary of the General Staff. Its origin may be traced to a very small secretariat, headed by a colonel, which was formed in the War Department General Staff and charged with the administration of the Office of the Chief of Staff and with maintaining a message center for the War Department General Staff. Since World War II, many commanders of overseas theaters, Zone of the Interior armies, and other major installations have adopted the mechanism of the Secretary of the General Staff in organizing their headquarters. Moreover, while it varies from headquarters to headquarters, the role and mission of the secretariat has displayed a trend to assume much more formidable proportions and, correspondingly, its average size and the rank of its members have increased. In view of its widespread use, its growing importance, and the increasing tendency of headquarters at all echelons to employ

this organizational device, an examination of the advantages and disadvantages inherent in the Secretary of the General Staff concept appears to be of some value.

Intended Relationship

As a generality, it may be said that the secretary of a staff should, in addition to performing the duties listed in Field Manual 101-5, *Staff Organization and Procedure*, assist the chief of that staff in the discharge of his responsibilities by:

1. Preparing briefs—either oral or written—of papers and studies presented to the chief of staff for decision.
2. Transmitting the desires and decisions of the chief to appropriate elements of the staff.
3. Ensuring that papers presented to the chief have been properly co-ordinated throughout the staff.
4. Prescribing detailed administrative procedures for the operation of the staff which will ensure that its business is effectively and efficiently conducted.

Generally, officers of proved capability are selected for—and gravitate to—positions in the secretariat. Because they work more or less directly for the chief of staff and because they visit his office frequently during the day, the secretary

Every effort should be made to minimize the unfavorable aspects of the Secretariat of the General Staff, for there are certain definite disadvantages which are inherent in the employment of this office

of staff and the members of his office usually develop a very close and personal relationship with the chief. As he develops confidence in these individuals, the chief relies, to an increasing extent, on their judgment and their dependability. In turn—and based on the loyalty and respect which they have for their superior—the secretary and his assistants become imbued with a strong desire to perform their duties to the complete satisfaction of the chief, and to relieve him of as much detail as possible in order that his time may be devoted to major problems. This progression is a completely natural sequence of events, and its counterpart has occurred in countless offices wherein a chief-subordinate relationship exists.

Advisors

The implications of this particular evolution, however, are most important. Almost inevitably the secretary and his assistants ultimately find themselves in the position—often at the invitation of the chief of staff—of making recommendations to the chief regarding the substance of problems and what his actions should be in connection with them. From his role as a briefer and an administrative assistant, the secretary very often becomes an advisor in every sense of the word.

Lieutenant Colonel Earl W. Edwards served with the 22d Regiment, 4th Infantry Division, throughout World War II. From 1946 to 1949, he was Assistant Professor of Military Science and Tactics at the University of Florida. He was an instructor at the Command and General Staff College from 1952 to 1954, and is now a student at the Army War College, Carlisle Barracks, Pennsylvania.

Lieutenant Colonel Thomas A. Kenan also served with the 22d Regiment, 4th Infantry Division, during World War II. He is a graduate of The Citadel (1939), and received his Master of Science (1947) and Doctor of Philosophy (1948) degrees from Ohio State University. A graduate of the Army War College in 1954, he is now with the G1 Division, Department of the Army, Washington, D. C.

Super-Staff

In order that the advantages of specialization may occur, some secretariats are organized into sections which compare roughly to the various elements of the general staff. An officer assigned to the strategic and tactical section, for example, monitors and reviews cases and studies prepared by the G2 and G3. Officers assigned to the administrative section advise the chief on cases and studies prepared by the Adjutant General and the G1. It is obvious that the continuation of this trend to its logical conclusion and the suborganization of the secretariat—in this fashion—will produce what amounts to a type of super-general staff which reviews the efforts of the remainder of the staff and passes recommendations thereon to the chief.

It should be noted that the secretary of staff is seldom shown on an organizational chart of a given headquarters in such a fashion as to reflect its true role and mission. On the contrary, it is often shown in a box off to the side of the chief of staff which would lead the uninitiated to believe that its relationship with the remainder of the staff is relatively remote. Actually, the relationship between the secretariat and the remainder of the staff is generally quite intimate and continuous. There is ample evidence to suggest that many secretariats constitute an organizational layer between the chief of staff and the various elements of the general staff. Where this is the case, a rather odd sequence of events often transpires when a study is prepared in one of the elements of the general staff and forwarded to the chief for approval. First, the study is prepared by an action officer who devotes considerable time and effort to probing the problem, exploring all of its facets, and developing what he believes to be the very best recommendation for the resolution of the issue. After being reviewed

and approved by a number of intermediate chiefs—depending on the level at which the action officer is located—the paper is submitted to the chief of the division responsible for the project. The division chief—usually a relatively senior officer—approves it, and forwards it to the chief of staff. Throughout this process, the study has been changed, reworded, and corrected so that when it is forwarded to the chief of staff for action, it represents the best thinking that the staff is capable of producing on this particular subject. On its way to the chief of staff, the study passes through the Office of the Secretary of Staff where it is assigned to an officer who may be required to brief the chief of staff on this particular problem.

In preparing his brief, it is quite possible that this officer may find that he disagrees with the conclusions and recommendations that have been incorporated in the study and may, in consequence, recommend their disapproval to the chief. In any case, recommendations which have been developed, approved, and forwarded by a senior staff officer are being reviewed by a relatively junior officer of considerably less experience in the Office of the Secretary. The question is patently clear: who are the principal advisors to the chief of staff—his assistant chiefs of staff or the members of the secretariat?

In the procession of actions described above, certain points deserve particular attention. First, the secretary and his assistants do not contribute to the project at hand in the sense of creating or originating a thought, a concept, or a study. By its nature, the secretary is a reviewing agency—not a producing agency. Because of this fact, it is not to be expected that action officers assigned to the various staff divisions look upon the secretary of staff and his assistants in a kindly light. On the contrary, there is

evidence to suggest that action officers generally regard secretariats as an unnecessary evil, a major obstacle, and a source of continuing irritation and frustration.

The recommendations developed by the secretary of staff have, in many instances, rather interesting backgrounds. Because of his close association with the chief of staff, he soon learns the basic views, principles, concepts, and idiosyncrasies of the chief. Usually—based on genuine respect—the secretary will adopt, as his own, the views of his superior and, in consequence, his recommendations and those of his assistants are based on the same principles, concepts, and ideas that guide the chief. Briefly, it may be said that in these circumstances the recommendations of the secretary are simply reflections of the chief's views as the latter have been made known in previous cases. It is not illogical, therefore, to predict that the chief will often support the secretary when the views of the staff division chiefs and the secretariat are at variance.

Advantages

Despite the rather adverse view that has been presented above, there are certain advantages—particularly from the viewpoint of the chief of staff—that may be derived from the utilization of a secretariat. The members of the secretariat often work closely with the chief, and he is quite familiar with their capabilities. Because of this fact, he sometimes directs the secretary to take substantive action, in certain cases, in preference to the staff division which has primary interest in the matter. The secretariat, moreover, constitutes an agency which can be used to ensure that cases are properly coordinated in the staff before being presented to the chief. Some secretaries are, in fact, held accountable for the proper functioning of the staff in certain respects and—to the extent that one is required—

serve as the critical and corrective arm of the chief. In that case, obviously, the co-ordinating function of the chief of staff has devolved upon the secretary; the chief retains only the functions of making decisions and advising his principal.

Perhaps the greatest value that can be ascribed to the secretariat accrues through its use as an agency for reviewing papers for accuracy, format, adequacy, and administrative correctness before they are submitted to the chief of staff for his action. The responsibility for the accuracy and completeness of a paper and for its co-ordination rests with the originating staff division. Unfortunately, however, the facts support the contention that no inconsiderable number of papers reach the secretariat on the way to the chief with errors and mistakes both in substance and in format. Obviously, the time of the chief should not be squandered in catching or correcting mistakes, nor should he be put in the position of reviewing faulty papers. Two solutions to this situation offer themselves: the chief can either insist that action be taken by staff divisions forwarding faulty papers which will culminate in the elimination of errors to the maximum practicable extent, or an agency can be established on which he can rely to screen papers for errors, mistakes, and faulty co-ordination before they are referred to him. At least in part, secretaries of staffs serve in this latter capacity.

Disadvantages

The disadvantages of the secretariat system are somewhat more obvious—particularly from the viewpoint of the remainder of the staff. Perhaps most important, this organizational device serves to isolate, in some degree, the chief of staff from his titular principal assistants. As a result—and because of their close association with the chief—members of the secretariat are often more familiar

with the desires and views of the chief than are his assistant chiefs of staff. In some headquarters, it is common practice for action officers in staff divisions to seek the views of the members of the secretariat before formally submitting a study and—more important—to modify the study so as to conform to the anticipated views of the chief of staff. One questions the value of recommendations submitted in that fashion.

Clearly, the operation of a secretariat, in the manner described in preceding paragraphs, constitutes a duplication of effort expended by the major divisions of the staff. To familiarize himself sufficiently with a given case so as to make a sound recommendation to the chief, the secretary or one of his assistants must go over the same ground that the action officer explored in preparing his study. As might be expected, the secretariat often calls the action officer in order to clear up a point which otherwise would require considerable research. This, of course, constitutes an annoyance to the action officer who is concerned at this time with other projects.

Experience discloses that secretariats tend to grow in size and complexity and—as time goes on—to assume responsibilities that should be discharged by the major staff divisions. To review adequately all the studies and papers submitted to the chief of staff by the various elements of the staff requires considerable personnel. Around the world, members of secretariats are working long hours and are asking for additional personnel.

It is not to be denied that a chief of staff and others in decision-making positions require assistance in discharging the manifold duties that are heaped upon them. Indeed, this is the basis of the justification that is most often offered for the secretariat system—the fact that papers, problems, studies, and all other matters presented to the chief must be

condensed and briefed to the absolute minimum essentials in order that at least some attention may be given to all the problems presented to him for consideration. Time is of the essence and the proponents of the secretariat system point to the fact that the time of the chief must be carefully husbanded and expended to the best possible advantage.

A Twofold Solution

What, then, is the solution to this dilemma? A twofold solution suggests itself. First, greater decentralization from the chief of staff to his assistant chiefs of staff in order that they may act for him on most matters within their own spheres of responsibility; and second, the adoption of a practice whereby, when it is necessary for the chief of staff to be briefed on a given project, he is briefed by the chief of the staff division responsible for the problem. It should be axiomatic that if a problem is large enough to warrant the attention of the chief of staff, it is certainly of sufficient magnitude to require a division chief to interest himself in it sufficiently to be completely familiar with the details involved. On the face of it, it appears to be an inversion of proper order for a chief of staff to be briefed on the details of a given study by an action officer from the responsible division. Where the chief of staff deems it important to familiarize himself with the details of an issue before coming to a decision, the division chief concerned should have sought out these same details

previously in coming to his own decision in the matter.

Even if the solution indicated above is adopted in principle, it is still true that the chief of staff will need some assistance in discharging his duties. It is submitted, however, that such assistance should be purely administrative in character. Bearing in mind that, in general, officers who serve as members of secretariats are capable individuals of good judgment, strong initiative, and a keen desire to express themselves, it is clear that the maintenance of the secretariat in the role of an administrative assistant is a difficult thing to achieve. Perhaps the easiest and surest way to accomplish that end is to eliminate secretariats vigorously and to assign to the chief of staff such assistants as may be required.

The disadvantages set forth above appear to outweigh the advantages that may be expected through the use of a secretariat system in a staff. In view of the widespread and increasing use of this organizational device, however, one is reluctant to conclude too hastily that there are not other advantages which appear in proper perspective only to a chief of staff or his commander and which far outweigh the disadvantages that have been cited. It is possible to conclude, however, that there are certain definite disadvantages inherent in the concept of the secretariat, and that, in employing it, every effort should be made to minimize or eliminate these unfavorable aspects.

AUTHORS

Authors submitting materials to the MILITARY REVIEW are requested to forward manuscripts through the Security Review Branch, Office of Public Information, Office Secretary of Defense, The Pentagon, Washington 25, D. C.

The Diplomat's Area of Decision

William P. Cochran, Jr.
Counselor, American Embassy, Formosa

The views expressed in this article are the author's and are not necessarily those of the Department of the Army or the Command and General Staff College.—The Editor.

ONE aspect of diplomacy which receives little emphasis is the numerous limitations upon the area of decision. If we consider each factor which must be weighed in reaching a foreign policy decision as a fence restricting our freedom of action, we come to recognize how small is the area of maneuver which remains.

For one thing, the solution to any problem in the field of foreign affairs must be in accordance with American historical traditions. No policy would last long which was in open conflict with the Monroe Doctrine, for example; or which failed to take into consideration our natural affinity for democratic governments, our pronouncements upon the right of all peoples to determine their own destinies, or our nonintervention commitments. Second, the decision must conform to and serve our national interests. Although these are difficult to define, they are clear and strong in the public conscience; and it is to serve these interests that we have policies. Third, the decision must be tailored to fit the innate psychology of the American people, as well as the current national mood. As for our national psychology, we are noted for our sympathy for the underdog, our humanitarian zeal, and our ebullient belief in progress. The current national mood is more volatile,

examples being the time of manifest destiny and the short periods during this century when we were determined to maintain our neutrality. Each of these limitations upon the area of thought hedges us in and restricts our freedom of movement.

Fourth, equally effective limitations upon the area of decision result from the necessity of taking into account current world trends—such as the spread of emotional nationalism, the ending of colonial rule, and the demand of underdeveloped areas of the world for aid in industrialization. Fifth, our repeated declaration of our adherence to the principles of international law requires that we accept its provisions as restricting our area of operation. Sixth, we are bound not only by the provisions of the Charter of the United Nations, but also by the terms of our numerous treaties and other international agreements. Seventh, we must always defer to the other nations' jealous pride in their independence, and to their insistence upon recognition of their sovereignty and their equality; and it is a natural, understandable, and unescapable fact of human existence that the smaller and weaker the state, the more adamant it is in insisting that its rights be respected.

Reciprocity

An eighth boundary to our freedom of maneuver, and one which derives from the preceding, is the principle of reciprocity. Nations jealous of their independence will often make concessions only on a basis of reciprocity—which we, in turn, are some-

times unwilling to grant. For example, our military forces serving in Europe may wish to establish Post Exchanges to provide our troops with toothpaste, cigarettes, and gasoline, free of customs duties and other taxes. Sometimes the other nation will permit this only if we include a reciprocity clause in the agreement; and this is where trouble may begin. Our own Treasury Department may refuse to concur, since this would authorize French aviation cadets, in training in the United States, for example, to establish their own wine messes—duty free—and to buy their gasoline free of taxes.

Equally, the Defense Department may wish to be able to impose necessary discipline upon our troops abroad, even for violations of the local law, by court-martial; and the foreign government may be willing to accede to this derogation of its sovereignty on a reciprocal basis. On the other hand, our own Attorney General may step in at this point, and refuse to concede a similar exemption from American jurisdiction to the military forces of our allies, who may—in some indefinite future—be training in large numbers in the United States. The principle of reciprocity is another fence limiting our freedom of action.

The Art of the Possible

Foreign policy decisions must also be confined within the bounds of possibility.

Pity the harassed diplomat for his area of decision is closely circumscribed and the many pressing demands upon him far exceed his means. Policy lines cross and conflict so that consistency is beyond his reach

This would seem obvious enough to go without saying, but the essence of diplomacy, as "the art of the possible," lies in its insistence upon the necessity of weighing, in the balance of decision, the viewpoints and attitudes of our allies, the probable reactions of neutrals, and our

estimate of the possible effects of any particular course of action upon the policies and actions of any adversary we may have.

This list of limitations upon the freedom of maneuver, in reaching a decision in the field of foreign policy, does not attempt to list them all; but it does serve to point out how many fences there are which limit and restrict the area of decision.

Military Commitments

Once this small, inner-core area of decision has been reached, the search for solution enters a maze. There are so many pressing demands from so many parts of the world, and inadequate means with which to meet them all. In the military field, for example, our present commitments are already extensive. We are involved, through the North Atlantic Treaty, in an alliance with Canada, the United Kingdom, Norway, Denmark, Iceland, the Benelux countries, France, Portugal, and Italy, which was later extended to include Greece and Turkey.

By the Rio Treaty, we are bound to come to the aid of any of the nations to the south which may become the victim of aggression. We are committed to Australia and New Zealand through the ANZUS Pact. We have also extended separate security guarantees to the Philippines, to Japan, and, more recently, to Korea.

Thus, our obligations are already world-

wide. Yet, there has been discussion of a Middle East Defense Organization, and recommendations that the nations of the Far East join in a regional security agreement—with the United States expected to play an active part in both. Simultaneously, we are continuing to ex-

tend military and other aid to the French and Vietnam forces in Indochina. How thin can America spread herself? If there is a limit to our military strength—and there is—which of these various new objectives is to have priority over the others?

Equally complex are the economic problems all over the world. In the Far East, we urge upon our allies an embargo upon trade with Communist China in critical strategic materials. We completely forego trade with that nation, ourselves, and have so far been able to influence Japan to limit and to control the type of trade which it has with Communist China. But Japan, to live, must have other sources of raw materials to replace Manchuria, and other markets as substitutes for her traditional outlet in China. Where are these to be? In Southeast Asia? That solution faces practical difficulties. There are political obstacles. Not only do these countries hate the Japanese, as a result of wartime occupation, but they want to diversify their own economies—to industrialize, rather than to continue as producers of raw materials for others to process and return to them for consumption. Furthermore, this area has long been a market for British goods, and the merchants of that country will fight to retain this trade.

If Japan's new outlets are to be in South America, Japanese goods will com-

pete directly with American manufacturers. If Japan's trade is to be diverted toward the United States, then our own businessmen and labor unions may demand tariff or quota protection against goods made by "cheap foreign labor." Yet, Japan must live, and foreign trade is a matter of national life and death. Like so many international economic problems, this one appears almost insoluble—certainly, there is no simple, easy answer.

Similarly, Western Europe is co-operating with us in imposing strict limitations upon trade with the Soviet bloc in strategic materials—but this involves some sacrifices. Where are these nations to find new sources for the imports, and new sales for the exports, which they formerly exchanged with Eastern Europe?

Economic Aid

The same complexities arise in connection with our economic aid. Believing that it is to our national advantage to help underdeveloped areas of the world eradicate those conditions of ill health, poverty, hunger, and illiteracy which provide fertile breeding ground for the cancer of communism, we offer technical assistance, and even extend financial aid in the form of grants or loans. Other groups—such as the countries of Latin America—talk persistently of our obligation to help them industrialize and otherwise diversify their economies. Yet, the regions of need are legion; the peoples who hunger and thirst for food, or factories, or education, outnumber us. Since the financial resources available are limited, which country or territory is to be favored? Why? How is its selection to be explained and justified to the other clamorous claimants?

It is in this way that the reduced and limited area of decision becomes filled with many voices, each urging his country's requirements upon our attention, each convinced of his unique and pre-

Mr. William P. Cochran, Jr. graduated from the United States Naval Academy in 1924 and 2 years later resigned and entered the Foreign Service of the United States. He served in Washington as Chief of the Division on Caribbean and Central American Affairs of the State Department. He is a graduate of the National War College, and served as State Department Advisor to the faculty of the Army War College at Carlisle Barracks, Pennsylvania, for the past 2 years. In April of last year he went to Formosa, where he is Counselor of the American Embassy to the Nationalist Government of the Republic of China.

scriptive right to our help, and each with a good case to present. In spite of our humanitarian zeal to help solve many pressing problems throughout the world, there simply are not enough tools—in the form of money or goods—to do everything. How, then, can we divide up what pie there is? How can we adapt these demands to our means, and to the current national mood of retrenchment, rather than expansion, in our international programs? The problem of the policymaker lies in the difficulty of reconciling these conflicting claims, within the bounds of the possible. Certainly, we must not make promises we cannot fulfill. We must not raise the hopes of other nations impossibly high. If we do, we may destroy ourselves by stretching too far and wide. Or, failing to make good—as through the economic collapse so repeatedly prophesied, and so happily anticipated by the Communists—we may destroy the precious belief in our pledged word, in our ability to perform what we have contracted to do. This loss of faith in our moral credit and in our possession of adequate power, could be just as devastating to our position in the world, as the loss of power itself. Prestige and reputation are, in fact, not merely symbols, but ingredients of power—as Professor Hans Morgenthau has pointed out—and they must be jealously guarded. We cannot afford to spread ourselves too thinly.

Conflicting Policies

A third complicating factor, within the reduced area of decision, is the simple fact that at times, policies themselves conflict. It then becomes necessary to decide which objective shall govern and which shall be subordinated. For example, our trumpeted belief in the right of all peoples to determine their own destinies sometimes runs directly counter to other aims. Great Britain and France are our friends, and are essential to our security

as partners in the North Atlantic Treaty Organization. They are also colonial powers, and draw economic strength—bolstering their military capabilities—from their trade with their colonies. The dilemma facing us is not hypothetical: Are we to support every demagogue in every colony who demands independence under the banner of self-determination? (It is a popular campaign tactic to blame all evils on the colonial power, and only the sad experience of certain former colonies has proved how fallacious this charge is; since the evils remain after independence is attained.) For us to support all such independence movements is to weaken the metropolitan powers whose strength is so important to our survival. It may prove unwise, no matter how sympathetically we may regard the national aspirations of the peoples concerned, when it is evident that they are not able to sustain themselves on a fully independent basis because they are not economically viable, or are incapable of defending themselves militarily or ideologically against the Communist threat.

We may also ask ourselves whose interests we may be truly serving by supporting the creation of new states which cannot continue to exist, except with continued artificial financial respiration, in a power-incubator. Is there not here a conflict with our experience which has led us to urge precisely the opposite policy—integration—upon the countries of Europe?

Our policy of nonintervention is similarly not an unflawed diamond. Suppose the head of a government—whether he be a virtual dictator or not—should ask our ambassador, "Should I continue in office, or should I hold elections in which I will probably be defeated?" When our ambassador replied, as he should, that that was a matter of internal politics in which he could not interfere, would the questioner not take that as approval of his

intention to continue in power? Or, suppose we saw that political developments were apt to bring to power—in a certain nation—a Communist-dominated regime. Are we to sit idly by, not using our influence or even expressing a preference, while another nation slides irrevocably down the Communist drain?

These are some of the difficult tight-ropes which the policymaker must walk. Numerous other examples could be given, but those cited should be sufficient to demonstrate the rule. In the field of foreign relations, consistency is not always a virtue; sometimes it is simply impossible of attainment.

The Decision

Having successfully taken all these complex and clashing considerations into the balance, the policymaker finds that the decision is still not obvious. His choice is never a clear one as between black and white. He cannot simply select the course of action—or, sometimes, the even more

preferable course of nonaction—which, if followed, will settle the pending problem, yet create no new ones; which will satisfy all demands at home and still be acceptable to all our friends abroad. Instead, the choice is between relative shades of gray. No one of the alternatives open to us is entirely desirable, while the other possibilities are uniformly unsatisfactory. Each possible solution has certain disadvantages—in the long as well as in the short run—and each one possesses certain advantages. What the harassed decision-maker must do, in the final analysis, is determine which of the alternatives is the *least undesirable*.

Pity, then, the harassed diplomat. His area of decision is closely circumscribed. The pressing demands upon him exceed his means. Lines of policy cross and conflict so that consistency is beyond reach and his final dilemma is to choose which is the lesser of two evils. Such a decision, from its very nature, will fully satisfy nobody.

This mutual security program is designed to promote the security and welfare of the United States. It takes account of four basic facts:

1. The Soviet and Chinese Communist rulers continue to build a vast military establishment to serve their goal of world domination.

2. The United States cannot gain security in isolation, but only through a system of collective security.

3. Certain free-world countries cannot, without our help, maintain the military posture required in the common interest, including the interest of the United States.

4. The threat we face is neither a short-term threat nor is it exclusively a military threat. Therefore, we should strive to hold free-world security commitments to levels which are compatible with the economic and social health of ourselves and our allies.

Secretary of State John Foster Dulles

HARNESS THE REVOLUTION

Major John H. Cushman, *Infantry*
Student, Command and General Staff College

The views expressed in this article are the author's and are not necessarily those of the Department of the Army or the Command and General Staff College.—The Editor.

IN THE crucial hour of decision which is upon us today, the United States Army must soon find the answers to two massive questions:

What is the role of the Army in our nation's security?

How should it organize to fulfill that role?

What is the Army's role? Out of this time of appraisal there is certain to come a decision which recognizes the vital and decisive mission to be assigned the Army as an equal partner in the security of the nation. The ability to retaliate with air power and the "city-busting" hydrogen bomb can never, in all realism, be the complete answer. Perhaps the door to victory can be opened with a truckload of explosives, but it is easier in every way to use a key, provided we have made sure in advance that we have it. The fighting soldier will always be a solid part of that key.

So let us not be misled or discouraged by the drum beaters for the master weapon. We may never see the next war, but if we do, be it one-third, two-thirds, or "total," we will see the United States

Army on the battlefields of the world, making its decisive contribution to victory.

Once the *role* is determined, the task is this—to do today those things which will make that Army of the next war an unbeatable fighting instrument. Revolutionary means of waging war are now emerging. We must integrate these revolutionary means into a superlative weapons system for ground combat. With objectivity, imagination, and vision, we must attack this task. Extraordinary leadership and character will be required to see it through. A guided effort of immense size is required—if we are to harness the revolution in ground warfare.

Today's revolution is part of the ages' long evolution in warfare, the product of successive new tools of war. It is the magnitude of the new means and the speed with which they are now presenting themselves that make the situation revolutionary today.

The character of battle has always been a function of the material with which it is fought. The longbow and the railroad, the musket and the telegraph, the airplane and the war chariot, horse artillery and the machine gun—these means and countless others have, through the centuries, entered the scene and changed the nature of war.

As each new weapon appears, the conduct of combat adjusts. This adjustment may be swift and precise; too often it is

In order to integrate the revolutionary means of war, which are now emerging, into a superlative weapons system for ground warfare, the Army must apply objectivity, imagination, and courageous leadership

clumsy and agonizingly slow. Study the story of adaptation through the years; the lessons of history are plain:

The nature of warfare is determined by the means.

The effect on war of the introduction of new means is rarely well understood in advance.

That army will win which judges rightly the use of new means and so remolds itself.

The combination of vision, judgment, and force required for this job has been rare indeed.

At rare moments in history, a leader of imagination, vision, and strength of will has grasped the potential of the means available to him and, possessing the authority to adapt organization, tactics, and strategy to those means, has fashioned a weapons system of incomparable efficiency. When such a system is brought into action against standard, orthodox, "conventional" forces, the results are not just decisive, they are massive. Both Alexander the Great in the fourth century B. C. and Genghis Khan and his successors in the thirteenth century used such weapons systems with earth-shaking effect. A more recent example is the still astonishing campaign in the west in May and June 1940, in which a reborn German Army decisively defeated the Armies of France, Great Britain, and the Low Countries in a period of less than 45 days.

Major John H. Cushman was graduated from the United States Military Academy in 1944. He completed a year of graduate study at the Massachusetts Institute of Technology in 1950. He attended the Advanced Course at the Engineer School, the Associate Advanced Course at The Infantry School, and served 2 years in Europe with the 22d Regiment, 4th Infantry Division. He was assigned for 5 months to the Combat Developments Section, G3, United States Army Europe, prior to returning to the United States where he is now a student in the Regular Course of the Command and General Staff College.

Our Army now finds itself at a moment of decision. Riding the crest of today's revolution, it can shape itself into the Army of the future.

The Powerful Partnership

There was once a time when armies could adjust slowly to the new means of warfare. That day is gone and to attempt to use the methods of that lost era would be fatal. Today, the design of new weapons must be accompanied by the almost simultaneous development of tactics and units to use these weapons. At the same time, each new weapon and technique is fitted into the weapons system. Developments follow each other so fast that the process of adjustment permits neither leisurely change nor a piecemeal approach.

A special tool of analysis, suited to the task, is needed to assist in solving this problem of adjustment accurately, totally, and swiftly. This tool is operations research.

One definition of operations research is "the application of the scientific method to the solution of a military problem." The revolution in warfare which confronts us presents problems of analysis which are so complex that we can reach a solution only by welding the reasoning methods and technical background of the scientist to the experience and judgment of the progressive professional soldier.

The Rand Corporation

To see the value of this soldier-scientist teamwork, we need only to observe the Rand Corporation and its influence on and for the Air Force. Using the methods of operations evaluation, the Air Force, in the great years of development since 1945, has kept pace with new weapons, thereby producing a weapons system of recognized effectiveness. Perhaps more important, it has made full use of the scientific approach in the solution of problems of strategy. Using Rand, the Air Force has succeeded in selling its well-

documented, yet slanted, point of view, simply because no better solution has been offered. The Rand organization and its teammates in operations research have made a contribution without which the Air Force would be in a far different position today.

Operations evaluation helped the Air Force control its revolution. It is more difficult to see its application to ground combat, which is the least simple of any aspect of war. Air and sea combat lend themselves to the mathematical approach. But the land battle takes place on the irregular surface of the earth and is the summation of the activities of many small units and individuals whose actions and reactions are not always predictable or controllable.

Yet, the very scope and complexity of the problem makes mandatory the use of this new and powerful tool of analysis, since it is certain that the old, conventional techniques of decision will not tell us all that we must know.

New Ground Warfare

Since the curve of military development parallels the curve of advancing technology, which is a rising curve of increasing slope, the revolution in warfare will, by 1965, be comparable to the evolution in war from 1865 to 1945.

If we use this new means well, what shape can this revolution take?

It appears now that the dominant means in the new ground warfare may be *armor, the convertiplane, nuclear weapons, and advanced electronics*. There will be significant developments in other weapons, in small arms, mine warfare, combat vehicles, and other equipment of war, but their effect will not likely be decisive.

Armor in some form is essential to ground warfare. Faster moving than it is today, with bigger guns, lighter protection, and the capability of air transport, armor will be present on the battle-

field, contributing its inherent qualities of mobility, fire power, and shock action.

The *convertiplane* is a revolutionary device which can, if pursued vigorously, exercise a profound influence. As a troop carrier or assault transport it can provide undreamed of mobility to the battlefield. As a supply vehicle it can give new flexibility and endurance to sustained and independent operations deep in enemy territory. As a reconnaissance aircraft it can expand our intelligence horizons. As tactical aviation it can give the ground commander a new form of "artillery," powerful, flexible, and under his own control.

Nuclear weapons, delivered by cannon, by rocket, by guided missile, or by convertiplane, available in a wide range of destructive effect and in quantity, will provide the ground fighting force with massive and flexible shock fire power at its fingertips. The trends already barely started by the introduction of these powerful weapons will continue—dispersion, concealment, rapid concentration, speed of operations, the need for mobility and for depth of defensive position.

In order to provide the commander with the control he must have in the new form of warfare, there must be developed devices yet unborn—products of *advanced electronics*. In ground combat we have barely begun to exploit the military possibilities of the electronic age. Aside from improved communications, electronics can provide us with air and ground guidance methods, radar reconnaissance techniques, and battlefield surveillance which will pick up enemy missile launchers of all types.

The Revolution

Assume that each of these means is exploited. What will be the net result?

There will be a vast increase in mobility, in flexibility, in shock fire power, and in control. The combination of the fast

tracked vehicle and the convertiplane will permit movement about the battlefield, regardless of the road net or terrain, which will very likely result in ground warfare assuming certain of the characteristics of war at sea. War on the battlefields of the future will thus resemble the desert campaigns in North Africa in 1940-43. Defense "boxes," fortified areas, mobile reserves, deep objectives, great depth of operations, fluidity of action once the battle is joined, and the need for generalship of the highest order—these will probably be the features of ground warfare after the revolution.

This revolution in warfare will be so vast that it will reach into every aspect of our Army Establishment. If we are to ride the crest of the revolution, we must prepare an integrated and complete solution in terms of organization and training, armament and tactics, communications and logistics, discipline and leadership. New type units must be formed and tested, service schools at all levels must change their instruction, new field manuals must be written, new equipment must be designed, tested, and manufactured, and new mobilization plans must be prepared.

All this takes time. We must, therefore, determine at once the basic outline of war in, say, 1965. Then we must, with courage and steadiness, set the course for our Army to follow, so that when we arrive at that year we will have forged the complete instrument, *an integrated weapons system which exploits all the possibilities of the new means available to us.*

Imagination

In the investigation, radical solutions will be proposed; each deserves a hearing on its own merits. For example:

The Army must re-establish its own tactical aviation, lost in 1947. This new Army Air Arm should be built around the convertiplane, a versatile aircraft which

can be developed to fill a variety of needs. It can be made capable of troop lift, supply, reconnaissance, nuclear weapon delivery, conventional close support of ground action, and assault. With electronic guidance devices, radar scopes, and superior communications, it would be able to move at night as easily as in the daytime. This weapon would exercise dominant effect on the battlefield.

Logistical support for the new formations must be provided by systems as revolutionary as the formations themselves will be. Speed of reaction, short cuts in communication, in prepackaging, and in transport, plus a flexible approach and centralized control, can solve the logistical problems inherent to the new, mobile, fast-moving warfare. Air transport and electronics, coupled with superb organization, can transform the logistical system.

There are many more fields for imagination and energy to exploit. Two of these are combat intelligence and the use of "resistance movements."

Questions

The problem facing the Army in this time of decision is this:

To evaluate the revolutionary means of warfare which are now on hand or can be made.

To integrate these means into a weapons system which exploits them to their greatest effect.

To prepare a total program of adjustment so that the means and the organization to use them arrive together at a selected point in time in the foreseeable future.

This, the central question of our day, is surely being attacked by the General Staff, our service schools, the Operations Research Office, and the field agencies of the Army. In all probability, each of these studies is part of a general pattern of investigation.

There come to mind certain questions

which one would like to ask about this present scheme of investigation. There appear to be certain essential attributes which must be present in the appraisal if the Army is to solve well the problem which faces it.

Is the entire problem being attacked, and on the highest level of the Army? It would seem essential that one co-ordinated, total solution be prepared for direct presentation to the Army's top leadership. The scope and complexity of the problem, plus the interrelationship of its parts, call for it to be considered as a whole. The solution should be integrated, complete, and in considerable detail. Farming it out can easily destroy its essential coherency.

Does the investigation make full use of the powerful methods of operations research? It is, of course, essential that the solution to the problem before us be entrusted to professional soldiers. But these should be men who can use well the tremendous contribution of the scientific method of attack, a tool which can provide accuracy and clarity to the decision.

Is objectivity being assured? There are many vital characteristics which the investigation must possess, but one of the most important would seem to be objectivity. The need for accurate decision is too great to admit to the workshop those with an ax to grind or to whom branch or personal considerations are paramount.

Does the investigation look beyond the mere employment of existing means? The requirement is for the extrapolation of present means and present possibilities so as to uncover weapons and techniques perhaps undreamed of today, with the aim of incorporating those new means into the revolutionary weapons systems which is to come.

We are searching for the master plan, the blueprint of our Army of the future. This plan will tell us what we must do if we are to use well the new means of wag-

ing war. The plan may lack many details, but it should be an integrated, scientific solution which encompasses the total problem before us. Using this plan with courage and vision, the Army can remake itself.

As it is written, it may sound simple. It is far from that. It is the most complex and formidable task our Army has ever faced. If we solve well the problem which confronts us, the United States Army will, in a few short years, have fashioned the key to victory—a weapons system of unparalleled combat effectiveness.

We will have succeeded in harnessing the revolution.

The Priceless Ingredient

The lessons of history are clear. The new means of warfare are here or can be made. The tool can be fashioned for their accurate analysis. But this tool of analysis, no matter how precise, can only recommend. There is one essential, one priceless ingredient, which must be present, or the effort to fashion our Army into a superlative weapons system, one which uses all the new means to their best advantage, will fail.

This priceless ingredient is the quality of superb leadership which must exist to guide the program to success. This guidance must exert itself in a dynamic way at the highest level of the Army. Required is a rare combination of many outstanding qualities, and yet it is not too much to hope that this combination exists in the right places today.

The leaders upon whom the responsibility rests must possess the vision to see the entire problem and the need for an integrated solution, the imagination to accept revolutionary answers, the experience and maturity of judgment to guide the investigation along sound lines, and the energy to provide the driving force required to follow the program through to

completion in all its details. They must command the respect and confidence of the Army and must have the ability to sell the revolutionary changes to the Army by convincing arguments for their need.

They must exert the force of will and power of persuasion essential to put across the Army program in the face of certain and severe opposition from other services which will object to many of its parts.

Above all, the situation calls for moral courage and strength of character. The inertia of a great army is immense; to change its course in the face of lethargy, of sincere doubt, of opposition by long established interests within and outside the Army, will require an immense effort by a driving will. In the face of this, to know when to accept the compromise, when to fight, and when to make the clear

decision, keeping in mind the final goal, will be demands few men will be able to meet.

The Future

The Army is a living thing. It has a soul. It grows and it wastes away; it develops and it recedes. Like all living things it obeys one of the fundamental laws of nature—the law of survival of the fittest. Our Army is confronted with the problem faced by living things since the dawn of time—the problem of evolution, of adapting itself to changed conditions. Like the creatures of nature it must succeed in this, or it will be destroyed, either by the new conditions or by another creature which has adapted itself more suitably. In this problem which faces our Army two things stand out—the time is short, and we must not fail.

THE MISSION OF THE MILITARY REVIEW

The MILITARY REVIEW has the mission of disseminating modern military thought and current Army doctrine concerning command and staff procedures of the division and higher echelons and to provide a forum for articles which stimulate military thinking. Authors, civilian and military alike, are encouraged to submit materials which will assist in the fulfillment of this mission.

Competition for Military Writers

Remuneration for all published articles submitted by military writers (active-duty personnel of the uniformed services of the United States Armed Forces) in the magazine is on a competitive basis.

Monthly Award—All articles written by military authors published in each issue are reviewed by a board of officers representing the Command and General Staff College. The board selects the first and second best articles published each month. The authors of the selected articles receive \$100 and \$50, respectively.

Annual Award—When 12 monthly awards have been made, the 12 first place articles are reviewed by the Faculty Board and the Annual Award article selected. The author of the Annual Award article receives \$350.

The selection of both monthly and annual awards is based upon the soundness, readability, completeness, reader appeal, accuracy, substance, originality of thought, authoritativeness, and the over-all merit and quality of the article.

Civilian Writers

Reimbursement for published articles submitted to the MILITARY REVIEW by civilian authors (to include retired military personnel, and reserve personnel not on active duty) is on an individual basis.

THE AIMS OF THE SOVIET UNION

Lieutenant Colonel M. L. Crosthwait, *Royal Engineers, British Army*

This article is an attempt to view Soviet policy through Russian eyes. It purports to have been written shortly after Stalin's death when the entire field of Soviet policy must have been reviewed.

The views expressed in this article are the author's and are not necessarily those of the Department of the Army, the Command and General Staff College, or the British War Office.

—The Editor.

THE object of this article is to determine the long-term aims of the Soviet Union, and to suggest the policies which are best suited to achieve them.

The aims of the Soviet Union are well known to all of you and I have no reason to suggest any change. They are:

1. To maintain the integrity of the homeland against all attacks.
2. To develop the Soviet Union from a Socialist to a Communist state.
3. To establish a World Union of Soviet Republics with Moscow at its head.

Our progress toward these aims in the past has been rapid—so rapid that many of us hope that their final attainment will not be long in coming. The main point that I wish to make in this article is that it is useless to look for quick results, and that our ideas concerning time and method must be radically altered.

We have now reached the point where

industrially we are the second strongest power in the world, and our Armed Forces are the strongest. We have surrounded ourselves with a ring of satellite countries, so that defense in depth against attack from the west is ensured. Our strength is respected throughout the world.

Unfortunately, the policies on which our strength has been built have aroused the enmity of the Capitalist world, which is united in its opposition to us. We see France, Italy, Greece, Turkey, and Yugoslavia—once so nearly in our grasp—now firmly out of reach. The decline of communism in Western Europe and America has shown that thoughts of world revolution are far removed from reality. These are the facts which we must acknowledge, and it is because of them that new methods are required.

The Desirability of War

The one way by which our present difficulties could be resolved and our aim of world union achieved is by the prosecution of a victorious war. At the moment, although we are strong and our initial successes would be considerable, the prospect is too uncertain for us to rely upon an early victory. We must avoid at all costs a war which we cannot be certain of winning in a short time.

War in any form would have serious effects at home. The unceasing effort which our people have been called upon to make in the past—not always accompanied by

The Soviet Union could solve her present problems of foreign relations by a radical change in policy—to embrace a period of planned peace, an increased industrial might, and an elevation of her standard of living

great reward—has had a bad effect on morale. War which was not demonstrably to repel an invader would lower morale still further. War could put back our internal progress many years and the establishment of communism would fade into the distant future.

We cannot, therefore, afford war in our homeland. We can only afford a war in which our enemies are overwhelmed by one gigantic blow. This will be possible only if we attain surprise, and have stockpiled, in advance, guided missiles and atomic bombers on a vast scale. It will only succeed if our enemies are impoverished and weak. It will take many years to create these conditions.

I do not believe the West wants war either. The intention of the so-called North Atlantic Treaty Organization (NATO) may be uncertain, but I do not believe that the offensive power of NATO will—under present circumstances—ever be such that it will ensure quick victory. For the Capitalists, too, no victory save a quick one will be worth while.

The cold war has, then, entered into a period of unbreakable stalemate. Given this universal reluctance to wage world war, it has become impossible for either side to find any effective means of forcibly dislodging those regimes, or moving those frontiers, of which it disapproves. We must, therefore, look for other solutions to the problem than those indicated.

Lieutenant Colonel M. L. Crosthwait received his commission in the Royal Engineers following his graduation from the Royal Military Academy in 1936. During World War II, he participated in the North African, Italian, and German campaigns, including a tour at Allied Forces Headquarters in Algiers. Following the war he served in Palestine, Egypt, and Germany, and held a staff appointment in the War Office, London. He was graduated in 1953 from the Joint Services Staff College, and is presently serving as an exchange officer with the Office, Chief of Engineers, Washington, D. C.

I have so far spoken in terms of the West. In the East, too, there will be no support for a world war. China has a long road to travel, and it is to us that she will look for help in developing her capital resources. Until she does so, she cannot wage an offensive world war. We should not even contemplate war until at least our combined industrial strength is equal to the strength of our enemies.

The Future

What then must our policy be? If both hot and cold war are denied us, our choice is restricted. Our policy can only be to work for a period of peace—a period in which we can build up the Soviet Union, China, and our satellites into the most powerful economic bloc in the world; a period in which we strengthen every aspect of our national life—our standard of living, the morale of our people, the sinews of war, and the stability of the Government.

At the same time, we must hope that the internal contradictions of the Capitalist powers will so weaken them that they will fall easy prey to our long-term aims. Under the cloak of co-operation, we must see that these internal contradictions are satisfactorily developed.

Our tactics must be elastic. To suggest any timing on which our plans should be based is rash, but the development of the future might be along the following lines:

1. A period in which we bring the cold war to a close, making certain that we have extracted every advantage from it, and in which we prepare our people for a change in policy. This period may last from 2 to 3 years. The prevention of the formation of the European Defense Community must be our major task during these years.

2. A period of about 5 years in which we gain the confidence of the Capitalists, and in which at home a stress on consumer goods and peaceful capital development

will mark the beginning of a new era in our progress toward communism.

3. A long period of peaceful relations in which the Communist bloc—in reasonable harmony with the West—is built up to industrial parity with it. This period may last another 10 years.

4. The next period depends on circumstances. Our armed strength, our industrial progress, the evolution of Capitalist contradictions, world progress in the spreading of Communist influence—the development of these factors will decide the next step.

I do not suggest, of course, that relaxation in warlike effort must be accompanied by a relaxation in discipline. The police and security forces must be maintained at a high state of efficiency. Also, we must be ready, at any time, to exploit—by force if necessary—any hitherto unsuspected weakness in the Capitalist camp.

Communist Orthodoxy

Some of you may accuse me of traitorous deviation and say that I am worthy of liquidation only. But I would remind you, Comrades, that it has always been our strength that we recognize the facts and mold our tactics accordingly.

Before his death, Comrade Stalin realized that a change in tactics was necessary. Lenin showed us how to be flexible in our methods when in 1921 he radically departed from orthodox communism and introduced the New Economic Policy, based on Capitalist principles, which saved our country from collapse. Stalin has spoken of "Socialism in One Country." I am speaking of "Socialism in One Bloc." The Soviet Union has tried to conquer the world for communism and has failed. Let us now see whether communism and the development of Marxist prophecies cannot conquer the world for the Soviet Union.

Comrade Stalin affirmed that Marxism is a dynamic doctrine and must adapt itself to its environment. Results are what

we must look for now. Time and methods mean nothing in themselves. I am asking you for time, and to be even more flexible than heretofore in your methods.

A change in our methods now will be propitious. The West—with its typical bourgeois tendency to wishful thinking—will be only too ready to believe that it is because of weakness and a lack of self-confidence on the part of our new leaders. This belief can be a great source of strength to us.

Capitalist Contradictions

I wish now to examine some of the contradictions which may undermine the strength of the Capitalists.

World Trade

The Capitalist countries—in their search for trade and quick profits—depend on a thriving world market. This will be all the more apparent when the production of armaments can no longer cloak trade difficulties. It must be our task to create a Socialist world market, so that the Capitalists will be faced with ever-increasing economic problems as their share of world trade shrinks.

In this process there may be opportunities to upset the pattern of trade between the Imperialists themselves. We may be able to supply one Capitalist country at the expense of another. If our victims are chosen cleverly not only will we weaken the over-all Capitalist economy, but we may benefit by Western help in our own industrial development.

Colonial Policy

The desirability of robbing the Imperialists of their markets in colonial territories and backward areas has long been recognized. As time goes on, it will become more and more clear that if our tactics are properly directed, these areas are bound to succumb to Communist rule.

From the Imperialist point of view there are two problems:

1. Finding a system which satisfies the national aspirations of the country concerned, and yet still permits the West to retain economic control.

2. The unrest created by the deep-seated dissatisfaction of the middle class intelligentsia and the peasantry with the corruption and way of life within their countries.

The West is trying to solve the first problem by schemes such as the so-called Colombo and Point Four Plans. These plans will fail. They do not help to solve national aspirations and any betterment in the standard of living will be swallowed up by an even more rapid growth in population.

The second problem can only be solved by a complete break with the past. Society must be refashioned from top to bottom, so that vested interests, corruption, and indifference to poverty are entirely swept away. This can be accomplished by only one method—the imposition of an iron rule from above, by which all that is undesirable is liquidated.

This iron rule can either be imposed by the Imperialists themselves—a course which neither Western public opinion nor inflamed nationalism will permit—or it can be imposed by a native dictatorship. Because of nationalism such a dictatorship will be antagonistic to the West, and the dictator—himself coming from the corrupt governing classes—will be unable to free himself, or his country, from the vested interests which surround him.

On the other hand, progressive and discontented elements within these areas have the shining example of our own revolution before them. Their nationalism will not prevent them listening to our propaganda. Time alone is required for them to fall into our hands. We must be careful, however, that we work only under the cloak of nationalism, or else we will upset the effects of conciliatory approaches elsewhere. A situation such as existed in

Korea—with its goal of imposed communism—must, therefore, be abandoned.

A fundamental weakness in the Capitalist system will be the position of a Capitalist Germany and Japan. Both countries will find themselves as an isolated, virile, and expanding people; hard working, yet restricted at every turn by the fear of their erstwhile victors for their own overseas markets. Having no outlet for their energies, a deep-seated urge to regain their national honor, no prospect of colonies nor increase in living space, they will require desperate action to save themselves.

The fate of Japan I consider is inevitable. She will be thrown into the arms of China—and the unification of her interests with China and, hence, with the Communist fold, is ultimately assured.

The German problem is more complex. When our friendly approaches to the West take effect, and the apparent need for unity in defense is no longer urgent, Germany will not work so closely with the rest of Europe. I will discuss the future of East and West Germany later, but of one thing we may be certain, in a Capitalist Germany lie the seeds of an Imperialist war.

A Capitalist War

Comrade Stalin in his October Testament, in 1952, spoke of the inevitability of war between the Capitalists. We must see that the vicious chase after narrowing markets, difficulties in the colonial empires, and resentment against America, bring about this happy result. The contribution of Germany and possibly Japan has already been cited.

The Spread of Communism

Despite efforts to conciliate the Capitalists, I do not suggest that we cease to help the activities of foreign Communist parties. The capture of world-trade unionism is the chief means of aggravating Capital-

ist contradictions, and this capture is, therefore, of supreme importance. Great effort and treasure must be devoted in its interest.

We must, however, avoid identifying our national interests too closely with the spread of communism. Such a course would be contrary to my suggested policy, and has not served well in the past. The deviation of Tito, and the lack of success with the trade union rank and file testify to that. The activities of the Cominform must be severely restricted.

I have spoken at some length on the Capitalist contradictions. Within the limits imposed by our bid for Western friendship, we must fully encourage their development. In time they will have far-reaching results.

Short-Term Policies

Our policy must be to check Western rearmament, to block the formation of the European Defense Community, to soothe the tensions aroused by the cold war, and to make the West forget our satellites.

For the most part it will only require a change of tune from enmity to co-operation to achieve this. If this change is backed by sufficient concessions, such as a settlement in Austria, we shall see NATO wither away and the American forces withdraw from Europe. We must, however, ensure that European opinion is ahead of American opinion on the desirability of withdrawing American troops, so that a legacy of ill will is left when the Americans disappear.

Germany

Western suspicions are unlikely to be completely disarmed until there has been a settlement in Germany. Many of you, I know, think only of what methods to employ to win over Western Germany. But such thoughts are not farsighted. I have stated that I do not think the West wants war, but I make one reservation. If we

were to win Western Germany—while NATO is still in being—I strongly believe that America, with her lackeys in her wake, would threaten war. The preponderance of power that Western Germany would ultimately give us, and the capture of the West's first line of defense would make an ultimatum inevitable.

We should not, therefore, impose communism on Western Germany. I fully anticipate your disagreement with this view, but to disregard my advice is dangerous, and the contribution of Capitalist Germany to a possible Capitalist war must not be underestimated. In the meantime, we should continue to integrate Eastern Germany with the satellite ring, although we must be prepared to allow some measure of independence if this step is required to assist in giving NATO its death blow. The Oder-Neisse territories must be held firm. Apart from their economic value, the threat of their return to Germany will ever be a means to ensure the loyalty of Poland and Czechoslovakia.

China

I have already mentioned the necessity for economic aid to China. The maintenance of friendly relations is, of course, not only a short-term policy, but it is in the near future that we must lay the foundations for long-term developments.

In general we must give China a free hand to pursue what policies she considers best in Southeast Asia; we must avoid friction over India—conceding to China the major influence. We must acknowledge China as an equal partner in the progress of world communism. In the meantime, we must exploit to the fullest Western differences with America over policy in China.

In the space at my disposal I can only deal with internal difficulties that may arise as a result of this suggested change in our policy. Our progress toward communism, the need to nationalize agriculture, and the future status of the peasant—

these are problems which require more treatment than I can give them here.

There is no doubt, however, that the policies I have outlined will strengthen the confidence of the people in the future of the Soviet Union and in their own futures. Their revolutionary fervor will be rekindled and they will more readily give their co-operation to future internal changes.

We have within the Soviet Union four great machines—the Party, the Army, the State Bureaucracy, and the Security Forces. It is vitally important that there should be harmony and friendship among them. But there are many conflicting interests. In general the Army would like to end the menace from the West by planning war; the State Bureaucracy, in which I include the industrial leaders, the intelligentsia, and the managerial experts, looks forward to a period of relaxation; the Security Forces would prefer to see a warlike austerity in peacetime and the continuance of the cold war. The Party demands the loyalty of all three and their efficient execution of all its wishes.

The Army

The Army can be especially dangerous to us. That time and peace are now required to strengthen the State will be severely criticized. We must, however, still have a strong Army and we must see to it that the deputy commanders for political affairs are well chosen, well trained, and are of proved reliability. It may also be necessary to increase the security sections within the Army, so that incipient indiscipline can be immediately suppressed.

The value of an efficient bureaucracy is very great. The people concerned are well paid and privileged, and they are often irreplaceable. But as they become more firmly established, and increase in numbers, they may become a threat.

Class differences may grow, corruption and nepotism may become more common.

In defense of their privileges they may even oppose the decisions of the Party itself. Conservative tendencies must, therefore, be ruthlessly rooted out. Our technique of revolution from above must keep them in a state of flux, even if this means some sacrifice of efficiency.

The security forces are the servants of the Party and our main aim is to see that they add to the stability of the country by retaining the respect of the other elements within the State. This will be assisted if more leniency in punishment and a greater respect for the individual is shown than heretofore. Strict political discipline must be maintained, however, and the efficient exploitation of political and other prisoners must still play an important part in our economy.

The Party

It is the task of the Party to be aware of and to resolve these differences. Its discipline must be strict, and those who are not prepared to co-operate with it must be liquidated. We must have a leader equal in world stature to Comrade Stalin, to see that orders are carried out. The mantle of Stalin has fittingly fallen on the shoulders of Comrade Malenkov.

Summary

The present impasse in our foreign relations can only be solved by a radical change in policy. We must have a period of planned peace. We must have before us the splendid vision of the Soviet Union as the center of a thriving Eastern empire, second to none in industrial might; second to none in living standards and in its potential to wage war.

We will see the Capitalists, weak and disunited, their workers looking to communism—they will no longer be a barrier to our world desires. With faith in communism and its mighty new interpreter, in friendship and harmony with China, we shall at last achieve our final aims.

Impact of Atomic Warfare On Airborne Operations

Lieutenant Colonel Norman E. Martin, *Artillery*
Instructor, Command and General Staff College

This article was written with particular reference to those operations involving seizure of an airhead in the assault phase of an airhead operation.

IN THIS day and age of atomic capabilities, an appraisal of the effect of atomic weapons, employed both offensively and defensively, on airborne operations is in order. In making this appraisal consider the impact of atomic warfare upon the three principal phases of an airborne operation, namely:

1. Marshalling.
2. Movement to the objective area.
3. Operations in the airhead.

Then ask yourself, "During which of these three phases is an enemy atomic threat most dangerous to the airborne force?" When 200 field grade officers were recently polled on this question, 75 percent indicated marshalling. Do you agree?

Regardless of your answer, let us take a closer look because an understanding of the considerations involved will better enable you to evaluate the impact of atomic warfare upon the conduct of airborne operations.

An atomic capability is collectively represented by atomic stockpile weapons, delivery means, supporting facilities—which permit the weapons to be maintained, swiftly prepared, and turned over

to the delivery agency—atomic production facilities, and sources of raw material. The greater the enemy atomic capability, the greater is the threat to the airborne force.

In measuring the extent of danger represented by atomic or any other fire support means, recognition must be given to the need for complete, accurate, and timely target intelligence. Unless the enemy can obtain timely and accurate target information, the tactical threat posed by even a most formidable atomic capability becomes relatively insignificant.

Not An Absolute Weapon

The atomic weapon is not an absolute weapon. Decisive results—as with other fire support means—can only be obtained by exploitation of the advantage afforded by use of the fire support.

We can conclude, therefore, that the atomic threat to any force will vary with:

1. The enemy's atomic capability.
2. His ability to obtain accurate and timely target intelligence.
3. His ability to capitalize on his atomic fire support means by exploiting their employment.

The most dangerous circumstance, insofar as the enemy atomic threat is concerned, occurs when the enemy has a strong atomic capability, an efficient target intelligence collection system, a mobile

The greatest threat to an airborne operation, from the standpoint of enemy atomic capabilities, occurs after the airborne force has been delivered into the airhead, not during marshalling or movement phases

striking force, and when all three can be brought to bear against the airborne units.

So far, we have considered only the enemy's side of the picture. To paint the other side of the story recognition must be given to measures or countermeasures which reduce the danger from the enemy's atomic weapons. These will include all activities designed to:

1. Prevent the enemy from delivering his atomic weapons.
2. Extend the time required for the enemy to deliver his atomic weapons.
3. Minimize the effects of the enemy's atomic weapons should delivery be accomplished.

Preventing Enemy Delivery

How do we prevent an enemy from delivering an atomic weapon? Continued and determined attacks aimed at the destruction of his atomic capability provide the best approach to the solution of that problem, and, of course, if we were completely successful the ideal solution will have been achieved and no further consideration would be warranted. Realistically, however, we must be prepared to conduct major airborne operations prior to complete elimination of the enemy's atomic capability. Can we hope to conduct airborne operations, which are principally offensive in nature, against an enemy possessing an unlimited atomic capability? The answer quite obviously is no. Present doctrine requires the establishment and maintenance of air superiority as a re-

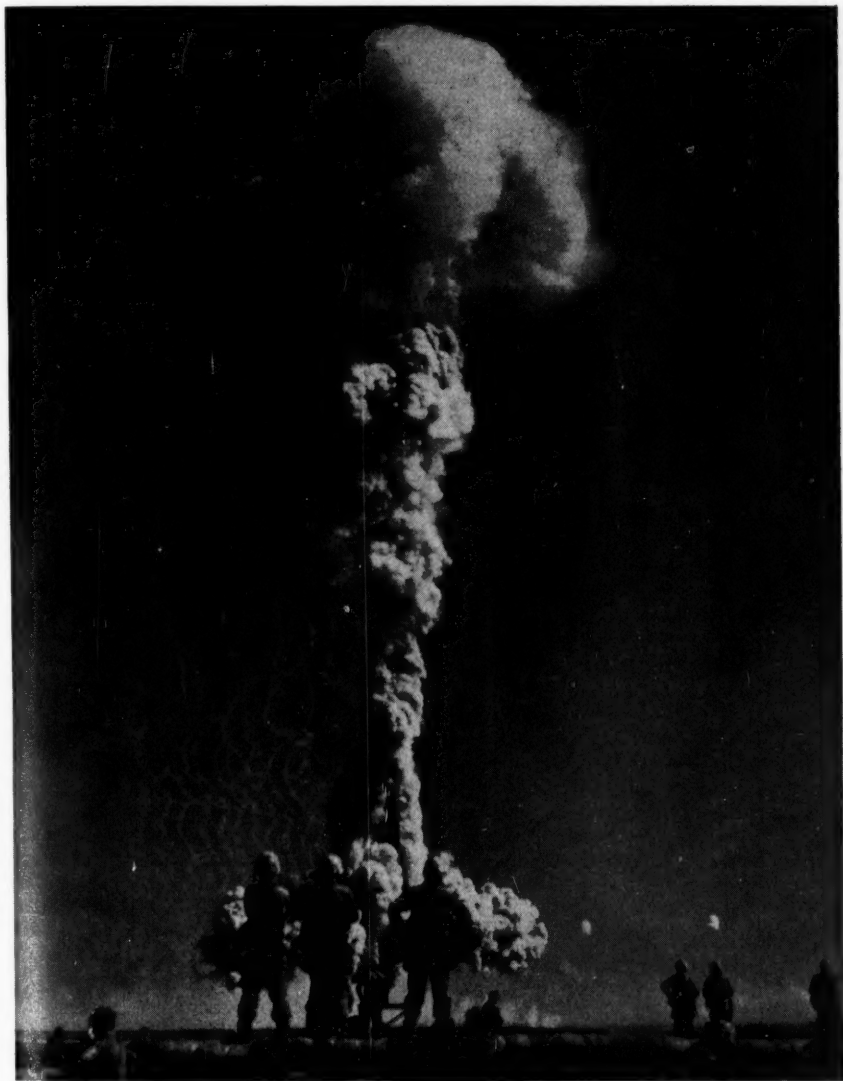
quirement for the conduct of a major airborne operation. Establishment and maintenance of air superiority, therefore, would, in itself, greatly reduce the enemy's atomic capability by depriving him of a primary delivery means, and further would cripple one of his most valuable means of obtaining target information.

The question then arises as to how much of a reduction in the enemy's atomic capability must be achieved for our purpose. The clue here seems to lie in the answer to what degree of air superiority must be attained to permit the conduct of a major airborne operation. The degree of air superiority required is that which is sufficient to permit the transport, delivery, and maintenance of the airborne forces in the objective area without incurring unacceptable losses. The goal for reduction of the enemy's atomic capability should be on the same basis; that is, sufficient to permit conduct of the airborne operation without incurring unacceptable losses.

Time Required

Why is it important to extend the time required for the enemy to deliver his atomic weapons? If we are able to appreciably lengthen the time required for the enemy to deliver an atomic weapon, from the moment an inviting target is offered—from 4 to 48 hours or longer—the opportunity is presented for massing, seizing an airhead, and, in addition, fully applying effective, passive defensive measures prior to the arrival of the enemy's weapons. Further, the greater the time-lag of the enemy's delivery system, the less likely that his target intelligence will be both timely and accurate, and, accordingly, the less effective his employment becomes. Of assistance in this connection, and contributing toward delay, will be our efforts aimed at destruction of his atomic capability. For example, a reduction in the number of his stockpile weapons or

Lieutenant Colonel Norman E. Martin was graduated from Cornell University in 1934. During World War II he served with the 457th Parachute Field Artillery Battalion, 11th Airborne Division. From 1947 to 1950 he was assigned to the Logistical Division, Headquarters, European Command. He commanded the 457th Airborne Field Artillery Battalion of the 11th Airborne Division prior to his assignment as a student at the Command and General Staff College in 1952. He became an instructor at the College following his graduation in June 1953.



This atomic blast with its mushrooming cloud of lethality gives rise to the question—What effect will the use of atomic weapons have on airborne operations of the future?

in his delivery means will inevitably result in retention of control at higher level. The higher the level at which the decision to employ atomic weapons is made, the greater the timelag becomes.

Another factor contributing toward the same end is counterintelligence. Customarily, airborne operations place great emphasis on this activity—that is, the denial to the enemy of information concerning the planned objective area, the scheduled time of attack, the forces to be employed, and the marshalling areas and departure airfields to be utilized. Counterintelligence measures, along with the use of deception and diversionary operations, will complicate the enemy's intelligence problem, slow his reaction time, and decrease his probability of gaining vital timely and accurate target information.

The reason for our interest in minimizing the effects of any weapon delivered against us is readily apparent. The planning and execution of an airborne operation must be conducted with this objective in mind, and should include a multitude of passive defensive measures such as dispersion and speed—which are of particular importance to airborne forces—personal protective measures, provision for maintenance of continuity of command and control, duplication of facilities and provision for replacement of units. Skill and success in the application of these measures promises to be a decisive factor in any test of ability to conduct an operation in the face of an enemy atomic capability.

Bearing in mind that we are considering the conduct of an airborne operation where the requisite air superiority has been met, and against an enemy with a *limited* atomic capability, it remains only for us to relate the material in the foregoing paragraphs to the three phases of an airborne operation. This procedure should conclusively answer our problem.

Marshalling is the first phase. During this activity the elements of the airborne

force complete final preparations for combat, move to departure airfields, and load into aircraft for movement to the objective area.

As conducted in the past, marshalling provided an inviting concentration of critical equipment and highly skilled and specially trained personnel. However, this condition need not exist. For example, the mounting of an airborne force consisting of 1 airborne division and 11 troop carrier wings might well provide for use of 11 departure airfields, with a troop carrier wing—a self-sufficient unit capable of operating an airfield with organic personnel and equipment—at each field. The airborne division might well occupy 11 or more base or marshalling camps located conveniently to the departure airfields. With the separation of these installations by a distance greater than the effects diameter of the enemy's most formidable weapon, it is apparent that although elements of the airborne force might remain vulnerable to a particular weapon, the entire force would enjoy a considerable degree of passive protection through dispersion. True, the greatest period of vulnerability would occur during the outloading, but even then 11 weapons—perfectly timed and placed—would be required to eliminate the airborne force.

The flexibility and range of transport aircraft permit marshalling from widely dispersed areas located a considerable distance behind the frontlines. This condition makes effective delivery of atomic weapons by the enemy difficult because of the limitations which distance imposes upon delivery systems, particularly in the face of air superiority, and because of increased difficulty in obtaining necessary target intelligence. Attempting to obtain decisive results by employment of atomic weapons against an airborne force during marshalling would appear to be an extravagant procedure for an enemy possessing only a limited atomic capability.

This is especially true as exploitation can seldom be employed to capitalize on the delivery of an atomic weapon. The presence of other targets which are as attractive—or even more attractive—and which are situated at a shorter range are also bound to influence the enemy in deciding just how his limited atomic weapons are to be most advantageously employed.

Insofar as marshalling is concerned, it

planes each. The serials are generally separated by at least a 2-minute time distance which—at 200 miles an hour—means something close to 7 miles between serials—enough to keep the loss from a perfectly delivered atomic weapon to whatever planes are in a particular serial. Employing small serials, the air column might consist of upwards of 30 serials. Using this figure, elimination of the air-



An airborne battalion enplaning at Fort Bragg, North Carolina. This is the final step in the marshalling phase of an airborne operation.—Department of Defense photo.

can be said that this phase of an airborne operation need not be a particularly dangerous operation providing: we have air superiority, the enemy atomic capability is limited, and full use is made of all active and passive defensive measures. An improperly planned and conducted marshalling phase can be disastrous; however, no marshalling need be so conducted.

The movement to the objective area for a division-size airborne operation has, in the past, been executed in a column of serials, the serials varying from 15 to 60

borne force while enroute to the objective area would require the perfect delivery of more than 30 atomic weapons—a formidable undertaking from a technical standpoint alone where the planes can be expected to travel over the least exposed routes, at low level and at considerable speed. The possibility exists of further dispersing flight formations to the point where delivery of an atomic weapon would accomplish little more than could be achieved by delivery of the same type missile equipped with a conventional warhead. It is recognized that decisive results

are obtainable with less than complete destruction of the airborne force during the movement to the airhead phase. However, there is no doubt that achievement of such a result by atomic attack would require a lavish use of atomic weapons.

Insofar as the movement to the objective area is concerned, the chances of the airborne force meeting up with an atomic disaster can be considered as "remote" providing: we possess air superiority; and discrimination is used in the selection of objective areas and flight routes.

Objective Area Operations

An enemy atomic attack during this phase of the airborne operation poses the most serious threat. Many reasons are apparent as to why this is true.

First, insofar as the enemy's atomic capability is concerned, a greater variety of delivery means against our forces in the airhead will become available to the enemy, including those that are most accurate and reliable. For example, even prepositioning of atomic weapons becomes a possibility, although in view of a limited enemy atomic capability and the enormous intelligence problem involved, this should not be a major source of worry. As the operating radius of our fighter aircraft is extended, the deterring effect of our air defense system is decreased which, in turn, increases the enemy's possibility of effecting air delivery of his atomic weapons. The net effect of moving the airborne force into the middle of enemy territory is to increase the enemy's atomic capability.

Coupled with the increase in the enemy's atomic capability is the relative ease with which he can now gather and produce timely and accurate target intelligence concerning units and installations within the airhead. Having an airborne force drop in on you is bound to be a disconcerting experience, but such action certainly makes the collection of target in-

telligence an easier task (compared with the problem in the marshalling area).

Worst of all, however, the enemy is better able to combine the increase in his atomic capability, and his improved target intelligence capability, with the use of an exploitation force. By application of this combination, then, the number of atomic weapons required to obtain decisive results could be materially decreased. These items added together spell the greatest possible source of danger for the airborne force from an enemy atomic attack.

Before painting too gloomy a picture, however, let me hasten to point out that with regard to vulnerability to the effects of the atomic weapon itself, the airborne force will enjoy certain advantages. Not only are airborne units landed in dispersed areas, but they normally attack widely separated objectives and hence maintain dispersion between units. This dispersion between units is generally sufficient to limit the effects during the assault from an accurately delivered, moderate-size atomic weapon, to just one battalion-size unit. Accordingly, a considerable degree of passive protection is obtained from attack by an enemy possessing only limited atomic means. Compared to the effect against troops in the open, the effect of atomic weapons delivered against troops in foxholes is greatly restricted. Of great importance to airborne units in the airhead is increased speed in the assault in order to be able to more completely apply passive protective measures prior to the time the enemy can deliver his atomic weapon against the airhead. One of the most significant of these passive defensive measures is "digging-in" by all individuals.

In evaluating means available to speed up the assault, consideration must be given to our use of atomic fire support. Preparation of the objective area by atomic and conventional fire support means may be employed to reduce enemy capabilities,

and to permit the air-landing of forces directly on objectives which would otherwise be too strongly defended to permit such action. Our use of atomic fire support in conjunction with defense of the airhead will permit acceptance of a greater degree of dispersion within the airhead and hence a reduction in the danger to enemy atomic attack.

Successful delivery of the assault elements in mass, and with surprise in an area critical to the enemy, will customarily be our aim. Seizure of a pass astride the enemy's main supply route would be an example. To reopen the pass the enemy would be obliged to eliminate the airhead by counterattack, and with a limited atomic capability the decisive employment of enemy forces would tend to require the enemy to co-ordinate his delivery of atomic weapons against the airhead with exploitation by a counterattacking force. Therefore, attendant delay in delivery of atomic weapons by the enemy will permit defending forces a better chance to more completely apply passive defensive measures. Also a degree of assurance is provided against the enemy's employment of surface and subsurface atomic bursts because the resulting radiological contamination and cratering would either make the area useless to him or would impede his exploitation. Massing of the enemy for exploitation would favor employment of atomic weapons by the defending airborne forces. Skillful use of atomic weapons by the defense can make the overrunning of a modest division-size airhead a far more formidable task than it ever was in the age of preatomic warfare.

Of importance in speeding the airborne assault is the great promise provided by helicopters and convertiplanes. Perfection of such air transportation means will permit the air-landing of forces directly on

objectives otherwise unsuitable for delivery of units by air, and in formations capable of immediately engaging in effective combat without the necessity for time-consuming assembly and reorganization. Such transportation will eliminate the need for extensive airfield construction for troop carrier aircraft and will make the concealment of marshalling, even in forward areas, relatively easy. Further, the ease in shifting of units within the airhead to counter enemy action will add greatly to the combat power of the airhead defenders. These developments, coupled with the tremendous punch provided by atomic fire support, indicate a role of continued importance for airborne forces.

Conclusion

Consideration of the foregoing material leads to the conclusion that the greatest threat to an airborne operation, from the enemy atomic capability, occurs after delivery of the airborne force in the airhead. Marshalling and the movement to the objective area are less vulnerable than operations in the airhead. The dispersion of airborne units, normal to airhead operations, provides a greater degree of passive defense than has generally been available to other ground forces in contact with the enemy.

Remember that the foregoing conclusions are contingent upon:

1. Our establishment and maintenance of air superiority sufficient to permit conduct of an airborne operation without incurring unacceptable losses from enemy air action.
2. A sufficient reduction of the enemy's atomic capability.
3. Use of the utmost care and skill in planning and conduct of airborne operations to ensure the effective employment of all active and passive atomic defensive measures.

PSYCHOLOGY AND LEADERSHIP

Major John H. Burns, *Infantry, Deceased*

The views expressed in this article are considered as valuable today as they were when first published in 1934.
—The Editor.

IT WILL be noted that the title covers considerably more ground than it would if it read "Psychology of Leadership." This topic would be almost impossible to study until the general mist which surrounds psychology and the subject of leadership had been blown away. The later extensive discussion of the psychological factors is taken up for this purpose, with the full realization that in such a short space the treatment is bound to be inadequate from a scientific standpoint.

Webster's Collegiate Dictionary gives the following definition: "Psychology—the science of the mind; systematic knowledge and investigation of the genesis, powers, and functions of the mind." From the same source we get the following definition of leadership: "office, position, or dignity of a leader; also ability to lead." It can be seen from the above that the scope of the article is wide.

From the definition as given it can be seen that there might be, and undoubtedly are, several different kinds of leaders. A classification must be attempted. Darwin was a great leader, and his biological theories have profoundly influenced the world. Einstein is another leader in his line. Edison was a great leader in the field of invention; Wagner in the field of music; and Eugene O'Neil in the modern theater. All these men may and do influence mankind. But it is not this type of leader which is the subject of this study. One may call such men leaders, by virtue of the fact that they are the flowering of genius in their chosen field. They

lead in the sense that other men follow by trying to equal or excel their work, and the combined result is a change in the world. But the type of leadership which interests us is the leadership which can influence groups of men, large or small, so that these groups will act in concert to carry out the leader's plan.

Roughly we may say that this leadership is the leadership which can arouse, control, mold, and direct the minds of men so as to utilize these men to attain a desired end. This, as it can be seen, covers more than the military field, and is well represented in civil life.

However, caution must be observed in studying leaders in civil life. Business in a democracy places a premium on a type of leadership far different from either of the two mentioned above. Business desires and rewards the astute and adroit individual who, dealing with a few men, can, by cajoling or threats, compromise or extermination, secure his ends. This leader needs neither the backing of the masses, nor great intellect. His power is that of his personality, acting on but a few men.

No one can deny the leadership of J. Pierpont Morgan, John D. Rockefeller, Owen D. Young, and others. These men wield tremendous power, can control governments, and set up empires of steel, oil, or finance. At present they are leaders because they are ahead in their chosen field, but the important point to remember is that the qualities which raised them from the rut and into prominence are not the qualities prerequisite for military leadership but do make for success in diplomacy, as Owen D. Young has shown. The lessons learned from these men cannot be applied directly to the problems of military leadership. The minor leader, the foreman type, also deals with

men in groups. He has an analogous position to the platoon leader or even the company commander, but his problem is vastly different from that of the mass leader as will be demonstrated later.

A fifth type, the so-called good administrator, can be added. Analysis indicates that he is a compound of the first three classes.

In the entire civil field the groups which achieve results—good or bad—through direct manipulation of the masses, are the preacher, the politician, and the labor agitator. Hence, paradoxical as it may seem, the military man and the politician have much in common. Both depend on the willingness of men to do their bidding, and both, perforce, must be able to sense the feelings of the mass. When a politician loses his influence on the masses, he loses his power and position. The military leader, when he loses his influence on his command, loses all power to achieve results. Since the politician's fall is quick and the soldier's fall is slow—especially in peace—this parallelism is not always recognized.

There is this salient difference between the methods of the political leader and the soldier. The first endeavors to find out what the masses want and gives it to them; the military leader finds out the job to be done and arouses and directs the masses to do it. When the rare politician follows the military technique, he can be

the acquiescence of the mass. This is clearly apparent in the case of the politician, but not so apparent in the case of the soldier. However, it is hoped we will later make this point plain.

So far, then, we can recognize five classes of leaders:

1. The leader who leads because he is recognized to be supreme intellectually or artistically in his field.
2. The business type of leader who leads because of his adroit astuteness and his magnetic influence on a few men.
3. The leader of small groups.
4. The mass leader who leads by his ability to sway the minds of large groups.
5. The good administrator type.

One might say that the most successful general should rate high in all five classifications, but this is not a discussion of generalship but of leadership.

It cannot be too strongly emphasized that successful mass leadership—the power to direct the energies of large groups—is not necessarily connected with the efficiency or intellect of the leader. Leadership must not be confused with generalship, ability, command, or rank. Mediocre generals and politicians have been magnetic and powerful leaders, and often in their defeats still retain the blind love and devotion of their followers. General McClellan, under the definition given above, may be conceded to be a great leader, but he was not a great or success-

Leaders derive power from their acceptance by the herd as leaders and judges of herd conduct. The primary duty of the military leader is to inculcate the proper ideals of military conduct into his organization

called a statesman. Both politician and soldier must deal with men in the mass—this is the common factor—but the soldier endeavors to direct the mass his way, while the politician goes along with the mass. That is where they differ. Neither can accomplish anything unless they have

ful general. The Army of the Potomac bore his stamp to the end, and he so impressed himself on the country at large that he was nominated for President. "A political general," some will say. Perhaps, but, if added to his leadership he had but a splinter of the determination

of Grant, he could have made many mistakes, and still backed by the blind devotion of his men, he might have won the war. Then history would have painted a different picture.

Defeat means the end of a mass leader who rises to power on the acquired prestige of many victories because of skillful generalship. But your true leader does not lose his power completely by defeat. Napoleon, defeated at Leipsic and banished to Elba and oblivion, came back to seize France with acclamation, and in 100 days reorganized an army and fought and lost the battle of Waterloo—an astounding feat of leadership. Even the disaster of Waterloo could not convince the allied powers that his skill was gone—and they should be the best judges—for they imprisoned him in St. Helena, and made sure that never again would the magic of his leadership arouse France.

From the foregoing it must not be assumed that intellectual capacity or skill has no bearing, nor does not aid in leadership, for study indicates otherwise. But this preliminary discussion is believed necessary in order to make it plain that leadership is a unit quality not dependent on ability or intellectual attainments. It is an effort to isolate that quality and define it in order that it may be studied by itself, and to make sure that leadership is not confused with generalship, technical ability, statecraft, diplomacy, money making, rank or command, and also to indicate what type of leadership is under consideration, and where we shall have to seek for examples outside the military field.

Man is a thinking animal but it must not be thought that he regulates his conduct by rational thought. Any analysis based on such a concept, and all general-

izations derived from such analysis, will be totally false. Man is a creature of instincts and his conduct is based on the driving power of these instincts. However, because of his greater brain, he can respond in several ways to an instinctive prompting and thus the instinctive nature of his acts is not always clear. Instinct, as used in this study, may be defined as "certain innate, specific tendencies common to all members of any one species."

Psychologists differ on the number of these instincts in man. One finds a large number while others are content to make broad groupings, which they frankly admit may be and probably are composed of several unit instincts. Trotter gives a grouping as follows: sex, nutrition, self-preservation, and the herd. Tansley divides them into three classifications: sex, ego, and the herd. Since it is obvious that self-preservation and nutrition are concerned with ego, and since what we desire is a rough general classification, we shall adopt Tansley's grouping which appears to be the simpler. Self-preservation, which will appear frequently in our study, should be remembered as an instinct under the ego classification.

At one time, not so long ago, the subject matter of psychology was limited to the "content of consciousness," which means simply the thoughts and feelings of which we are fully aware. This field was explored by introspection—almost the only possible method. Such a method, however, placed an overemphasis on the reasoning process and threw the picture of the mind out of perspective and this gave psychology a sense of unreality. Furthermore, it left unexplained many types of mental phenomena and failed to explain human behavior in others—or even in ourselves. This has forced the psychologists to assume the existence of a part of the mind, the workings of which we are not conscious, but which has a powerful effect on the conscious part. The result is an hypothesis

Major John H. Burns, former editor of the INFANTRY JOURNAL, was a graduate of the 1931-33 class of the Command and General Staff School. His death occurred in June 1940.

of the mind as being formed of two parts: one of the conscious part and the other the unconscious part. Care must be taken that the impression is not gained that there is any dualism in the mind. It is all one—conscious and unconscious—but, of the workings of the unconscious part, we are not aware.

The unconscious mind may be considered to be the seat of the mental elements which correspond to the great primitive instincts, and from it is derived the psychic energy which activates the conscious mind. From this it can be seen that the core of the mind is instinct. The conscious mind is, comparatively, a superficial structure built up by an accumulation of memory traces during the individual's life. With this conscious mind man carries on his daily life, and in it is the entire mental equipment immediately available to consciousness. It must be looked upon as the instrument by which the unconscious seeks satisfaction, and this applies to the most highly developed man. Of the psychic activity of the unconscious we know nothing, except that activity is constantly going on as proved by direct eruptions into consciousness.

It should be noted here that the energy which drives the conscious mind is not self-generated, but comes from the unconscious or instinct portion of the mind; and that the conscious, reasoning portion of the mind, is but an instrument of the unconscious. A clear knowledge of this will explain many apparently inexplicable human actions. This is the primal cause of much of the pseudo-reasoning called rationalization.

How does this mind work? Let us take an example. Something frightens an individual and he flees. (It may be said that he does not always flee, but sometimes stands his ground. This is true and the mechanism will be explained later since its full understanding is of great importance to the military leader and is the

basis of military organization.) In the simple action, where the individual flees, three mental phases are involved. These are:

1. The recognition of the danger.
2. The rise of emotional feeling (in this case, fear).
3. A distinct mental tendency or "mind-set" to run.

Technically, the recognition is called "cognition," the emotion arouses "affect," and the tendency to flight "conation." All three are phases of one mental process which cannot be divorced, one from the other. It is important to recognize that the human mind, like that of an animal, is a complex mechanism for doing things and not for reasoning. To comprehend it one must regard it in this light at all times.

The conscious part of the mind cannot prevent this threefold process explained above. Recognition of a fearful object excites fear and with this fear comes the tendency—the "mind-set"—to run, to get away. All that the conscious part of the mind can do is to prevent this chain of psychic activity from exploding into its natural action—flight. Later, it will be seen that it is not the reasoning part of the mind which has the main role in preventing this running, but the counteraction of another instinct.

If this statement of the psychologists is true, then there is no such thing as fearlessness. All persons experience fear. This is borne out by the frank confessions of such courageous men as Marshal Ney, Turenne, and the daring Russian, Skobelev. Hence, it is absurd to plan on any man or group of men being unafraid in real danger. Such fear must be expected and, since fear causes physiological changes which lessen fighting ability and stamina, men should not be subjected to its influence unless absolutely necessary.

The action of those primitive instincts such as sex and self-preservation needs little explanation. It is characteristic of

such instincts that when one is activating the conscious mind there is no conflict with any other instinct. A man wild with fear, for instance, is not likely to be troubled with any thought of a sex nature or any desire for food. When one of these primitive instincts has the floor, so to speak, the others are in abeyance. Another important characteristic is that, in general, they are pleasant to yield to.

However, the herd instinct does conflict with the other instincts and such conflict may, and often does, cause dire results. Since a knowledge of the herd instinct is of the highest importance to the military leader, a few of its more obvious characteristics will be enumerated here.

The herd instinct causes man to be intolerant and fearful of solitude—both physical and mental. This intolerance is the cause of his mental rigidity. His fear of solitude betrays itself in his desire to be with his fellows not only physically but in thought. It is well known how difficult it is, for example, to keep soldiers from bunching or grouping when teaching extended order drill, also how easily people contract the opinions and ways of those with whom they live. This shows the working of the instinct in the physical and mental field.

Man is more sensitive to the voice of the herd than to any other influence. It can inhibit or stimulate his thoughts and conduct. It can endow him with energy, courage, and endurance; and can just as easily take them away. It makes man dress, act, and even think in accordance with herd ideals. The murmur of the herd says that straw hats will be discarded on 15 September and, no matter how hot the day, straw hats are discarded—a purely irrational action, only to be explained by action of an instinct. He is subject to the passions of the pack and the panic of the herd. These activities are not limited to actual crowds. Men can and do have panics without being in a crowd. The past

run on the banks of our country, which was only stopped by a bank holiday, shows that a general state of panic can exist without the presence of the crowd. The hue and cry of the newspapers after some notorious criminal, such as Al Capone, shows that the passion of the hunting pack still exists and, furthermore, needs no crowd to stimulate it into action. The action of the herd instinct in mobs can be plainly seen, but to think that such psychological traits appear in crowds only, would be a serious error.

Man is remarkably susceptible to leadership. This might seem to be rational rather than instinctive, since what could seem more reasonable than that a group of men seeking a common object should place themselves under a strong and capable leader. But when one considers the type of leader which is selected, there can be little doubt that this quality is based on instinct. Certainly one can say that the leaders elected by the people to make their laws are not selected on rational grounds; for they are not, generally, the best men for the purpose. Impatience with Congress has resulted from the fact that it does not contain leaders able to bring the country to a normal basis, yet in the business world such leaders were obtainable. However, they most frequently are not the "mass leader" type and could never have been elected.

According to Wilfred Trotter in his *Instincts of the Herd in Peace and War*:

If a man is fluent, dexterous, and ready on the platform, he possesses the one indispensable requisite for statesmanship; if, in addition, he has the gift of moving deeply the emotions of his hearers, his capacity for guiding the infinite complexities of national life becomes undeniable. Experience has shown that no exceptional degree of any other capacity is necessary to make a successful leader. There need be no special training, no great weight of knowledge either of affairs or the human

heart, no receptiveness to new ideas, no outlook into reality. Indeed, the mere absence of such seems to be an advantage; for originality is apt to appear to the people as flightiness, scepticism as feebleness, caution as doubt of the great political principles that may happen at that moment to be immutable. The successful shepherd thinks like his sheep, and can lead his flock only if he keeps no more than the shortest distance in advance. He must remain, in fact, recognizable as one of the flock, magnified no doubt, louder, coarser, above all with more urgent wants and ways of expression than the common sheep, but in essence to their feeling of the same flesh with them. In the human herd the necessity of the leader bearing unmistakable marks of identification is equally essential. Variations from the normal standard in intellectual matters are tolerated if they are not very conspicuous, for man has never yet taken reason very seriously, and can still look upon intellectuality as not more than a peccadillo if not paraded too conspicuously. Variations from the moral standards are, however, of a much greater significance as marks of identification, and when they become obvious, can at once change a great and successful leader into a stranger and an outcast, however little they may seem to be relevant to the adequate execution of his public work. If the leader's marks of identity with the herd are of the right kind the more they are paraded the better.

In the final analysis, man's relations with his fellows are dependent upon the recognition of him as a member of the herd. All these characteristics manifest themselves whether or not the individual is in actual contact with the herd. This last is highly important. The feeling of guilt and remorse is an inward manifestation that the individual realizes keenly that he has violated the dictates of the herd and, although his transgression is not found out, the feeling persists. The

many cases in which a transgressor has given himself up to the law after years of security, because he could not rest with the knowledge that he had transgressed and had not paid the herd penalty, shows the tremendous strength of this instinct.

Another vital feature of the herd-minded man is his suggestibility. "Suggestion is a process of communication resulting in the acceptance with conviction of the communication proposition in the absence of logical adequate grounds for its acceptance." Le Bon, Sidis, and Eltinge believe that man is suggestible, but believe that this suggestibility is caused or at least heightened by the inclusion of an individual in a crowd. This, however, does not seem to square completely with observed facts. The present opinion is that man is everywhere, anywhere, and always subject to suggestion. It is a normal quality of the mind. Thus, suggestion may or may not be heightened by the presence of a crowd. No attempt is made to settle that here. The degree of this suggestibility is not so important for our purposes, but the fact that man is always suggestible is highly important. Disregarding pathological cases, it can be said that, in general, suggestibility is greater or less, depending on whether the suggestion is in conformity to general ideas already in the individual's mind, the deficiency of the individual's knowledge of the subject—an ignorant man is more susceptible to suggestions, because he has no ideas on the subject which might conflict—and the source from which the suggestion comes. The prestige of the source of the suggestion counts highly.

This suggestibility of man is characteristic of all herd animals, and seems to be a necessary mechanism to enable the herd or group to act as a unit. The growl of the dog gives warning to the pack, not the intruder; the stamping and snorting of the grazing horse gives warning to the herd that something is wrong. If the in-

dividuals of the pack or the herd were not sensitive to such stimuli the group would soon cease to exist. So man, being a herd animal, is suggestible and this suggestibility is what brings on panics and mob violence.

The characteristics of the herd instinct and the suggestibility of man have been discussed rather fully, since it is believed that the part played by these factors in forming, controlling, and fighting military units has not been fully appreciated. There is a rather fixed belief that the human is controlled by fear of punishment and hope of reward. Nothing could be more contrary to observed facts, yet this has become almost a doctrine in the service. The author has heard one of the most brilliant generals in the service—a man who did outstanding work in France—emphatically state that this was the only way that mankind could be controlled. Nothing could be further from the truth. This hedonistic doctrine has been fully exploded.

From the foregoing we get a picture of the man whom the leader has to manipulate to secure his results: He has a mind—the basis of which is instinct—and his actions are dictated by instinct, not reason. The superficial reasoning portion of the mind is utilized mainly to secure instinctive satisfaction, or to rationalize instinctive wishes, and not to produce rational conduct. He is fearful of being alone physically or mentally. He is more fearful of the voice of the herd (the group to which he gives his allegiance—and his nature forces him to give it to some group) than any other thing. He is subject to the passion of the pack and the panic of the herd. He is infinitely suggestible, everywhere, anywhere, and always, particularly if the suggestions come from a high source or originate with the herd, do not conflict with herd ideals, and if his knowledge on the topic is scanty. His mind is a complex mechanism

for doing things, not reasoning, and operates essentially like an animal's.

This is a far different image from that of the godlike rational creature who, actuated by pure reason, and high motives of patriotism, altruism, or religion, goes out to die for his ideal. This old ideal of man must be swept aside before one can learn much about leadership from psychology.

It is interesting to note that the methods of controlling soldiers by all military organizations from ancient times have been eminently suited to the psychology of man as outlined above. The soldier is no mediocre psychologist himself and the organization he has developed for fighting—no doubt by the bloody process of trial and error—seems psychologically sound. If he looks upon new ideas of handling soldiers with a good deal of suspicion, he has good grounds for it. At least he seemed to have sensed the nature of man and to have taken steps to handle him properly, while the psychologist, and his predecessor, the philosopher, were formulating concepts of man which had no basis in reality.

Writers on psychology and leadership speak of racial differences and how the French, English, and Germans react differently because of their different blood strains. The "tenacity of the English," the "dash and élan of the French," and the "methodical, plodding German" are almost stock phrases. These differences have been attributed to Anglo-Saxon, Celtic, or Teutonic blood. An entire literature has been based on such a concept of racial differences. Only lately Hitler, of Germany, rose to power by his glorification of the German race. There is a world of power in these phrases; and wars have been made and are in the making because of them. If there is such a thing as racial psychology in modern nations and if the human described above is profoundly modified by racial traits, then it is important for the leader to know what such

racial traits are, and how to use them to the best advantage. Eltinge states, for example, that the organization methods and leaders which suit one race will be unsuitable to the others.

Le Bon, Eltinge, Ardant Du Picq, and other serious writers believe there are such traits and mention them frequently. Eltinge goes so far as to say that because of the changes in our racial composition in the last half century because of immigration, it is improbable that the Civil War can furnish any reliable information as to what we may expect our people to accomplish today—a serious charge if true. However, this was written before World War I. He also states that it is impossible because of this immigration, "to think of an idea which would make a strong mental and psychological impression on the entire mass of the population." This is even more serious from the standpoint of leadership. Madison Grant, Homer Lea, and Lothrop Stoddard wax eloquent over the Anglo-Saxon and the blue-eyed Nordic. They, and other writers, have produced a cult of Anglo-Saxonism and Nordicism in this country—and incidentally the Ku Klux Klan. To mention the German books glorifying the Nordic, going so far as to claim Christ, the Jew of Nazareth, as a Nordic, or the French books exalting the Celt, would take pages. How much truth is there in all this? They cannot all be true. Which is right? The question is important since these ideas have tremendous power over the minds of men; and, if Eltinge is correct, are of great import to a leader.

"Let us take a look at the record," to crib a phrase from a leader in the political field. Dixon, a very thorough and cautious scholar, says that there is as yet no criteria by which one can classify mankind into races. Another prominent writer states that the verdict of modern anthropology is that there is no such thing as a Latin, a Celtic, a German, or a Slav

race. This is not an auspicious start.

But grant, for the moment, that there are certain basic races in Europe. Neglecting certain minor strains, for the sake of simplicity, we can tentatively adopt the rather common classification used with modifications by many writers; for example, the long-headed, dark Mediterranean race residing in the south and west of Europe generally; the round-headed Alpine race of central and eastern Europe; and the long-headed, tall, blond Nordic race of northern and western Europe. We do not state that these are pure races or a blend of one or more races. We do not know, nor does anyone know. We have merely accepted, for the moment, a tentative classification, which may or may not be true, and have assumed that these physical differences indicate mental differences. This last also may or may not be true. On this basis what is the racial foundations of the larger European nations?

Treitschke states that the English are a strongly mixed race. Taylor avers that the British Isles were a refuge for the debris of broken tribes pressed out of Europe. Hankins states that England is not Anglo-Saxon in race, nor is America, nor has either ever been. This last will come as a shock to the Nordic worshippers in England and America, and to those who use phrases and slogans for thoughts. But it is as nothing to the shock that Sir Arthur Keith—a foremost authority—produces when he states that of all the inhabitants of the British Isles, the Irish may be regarded as the purest representatives of the Nordic race. Hankins then shocks both Irish and English by saying that anthropologists declare both are alike in racial composition, with the Irish the purest representative of the Nordic race. This certainly will please neither party, and one wonders what they have been fighting about for some 700 years. Hankins continues and says that so far

as the British Isles are concerned there is no basis for identification of race or nation; nor are the smaller groups, the Scotch and the Irish, homogeneous in composition. Both are mixed. Keith then adds to the general confusion by stating that the British Isles are the most uniform of all the large nationalities, which can only mean that the nations of the Continent are extremely heterogeneous in race. It begins to look as if this matter of racial psychology is becoming rather confusing. There is no firm ground yet.

Moving over to the continent of Europe, what do we find? France may be regarded as a synthesis of Europe. Some parts are more Mediterranean than Italy, some more Alpine than Switzerland, and some more Nordic than Germany. Germany is in no sense a racial unit. Except in the west and north, where the traditional Nordic type may be found, the German is hardly to be distinguished from the adjacent populations of Switzerland, Belgium, northern France, or the Slavic nations. The racial purity of Germany is a myth. The domineering Prussians are less true to the Nordic type than the Hanoverian, and what little data that is obtainable on the head form show them to be overwhelmingly round-headed, or in other words, Alpine. Furthermore—and this caps the climax—Hankins states that England, France, and Germany are composed of nearly the same racial elements.

When it is considered that ethnologists and anthropologists are not sure of what constitutes a race; when it is seen that, accepting a tentative classification of races, one finds the European nations to be a heterogeneous stock; and when one further considers that there is a large group of anthropologists who will not agree that there is any organic difference between the races, European or Asiatic, the talk of racial psychology is, to say the least, unscientific. It is extremely doubtful that any psychological generali-

zations about European nations based on racial or blood differences is of any worth. Therefore, it would seem that the generalization of Eltinge that immigration has upset the balance in this country to such an extent that the lessons of the Civil War could not be applied to any other emergency, is incorrect, and further, his statement that the different peoples coming into the country would need a different type of leadership, is not sound. As a matter of fact, if one accepts the division of Alpine, Mediterranean, and Nordic, we are going through the process that Europe has been going through for thousands of years and the racial components, excepting the Negro, are exactly the same.

Yet the question is still unsettled, for it is common knowledge that the French do things, and think about things differently from the Germans; and the English, in turn, have a different viewpoint from either of the other two. There is no question that there are differences between these countries—and striking ones at that—in method of thought, mental and moral outlook, living, art, culture, and the like. Has the fallacy been in attributing these differences to race? Accepting the theory of the three basic European races, one might say that the national differences are the result of the slightly different proportions of each racial ingredient—Alpine, Nordic, or Mediterranean—in each nation. There is undoubtedly some truth in this. The author does not pretend to be able to settle this question. Hankins and Dixon believe this possible. McDougall states that differences are not innate, at least in European countries, but are an expression of different traditions. He believes that if the entire French and English nation could be interchanged by the wave of a magician's wand, there would be no difference. The transposed English would be and act like the present French, and vice versa. Hankins gives great weight

to the cultural and geographic background. The author takes no sides in the matter, but believes that slight differences in racial composition will take generations to make changes in the type of the nation, whereas, the effects of cultural forces may be seen in a generation. This is a cautious middle course, but gives the racial proponents a good bit more than they can prove, as can be seen. The example of the Japanese shows how quickly a nation can be made over. The peaceful hermit kingdom in less than a century becomes belligerent and starts on the road of Genghis Khan.

The author, in view of the data presented, is forced to believe that the differences in European nations, in a major part at the very least, can be attributed to the geographical and cultural background of the nation. From birth to death the individual is put through a rigid social training and it can be seen that the dolichocephalic blonde Nordic, the round-headed Alpine, and the dolichocephalic, dark Mediterranean, when put through this training in Germany turns out a German; in France, a Frenchman; and in England, an Englishman.

One can sum up the racial psychological question—insofar as it affects the question of American leadership—somewhat as follows:

1. The use of the phrase "racial psychology" is unscientific when applied to European nations, since European nations are not races, nor have they ever been.

2. The amalgamation of stocks which took place following the depression of 1929 in America was essentially the same as that which had been going on in Europe for thousands of years.

3. The differences found in modern European nations are not the result of racial traits but rather the processing which the individual receives during his life. And we might add that this processing

is the effect of his geographical and cultural background.

4. The type of American, and the psychology he will exhibit, will not be because of his racial composition so much as to the processing he received in the home, the school, society, and the workshop.

5. To determine the type of American which will lead, and be led, in the next war, one needs to analyze the present trends in education and social life.

6. Finally—since we have a heterogeneous population—it is highly important that all shall receive a common imprint, and that this imprint shall be such that the traditional American character is preserved. This character, it should be noted, is not the result of race but environment, and we can expect it to change as environment changes. Furthermore, since we are dealing with potential military material, it is important that this civil training does not render them mentally unfit to come to the defense of their country in war. A president once spoke of "weasel words"—one word in a paragraph which can suck the strength and sincerity from a splendid thought. Today there are "weasel phrases" flitting about which are undermining the qualities which we must have in humans if soldiers are to be made from them.

In fact, the entire subject of popular education in this country should be studied, as well as American sociology, if we are to come to clean-cut and definite conclusions regarding American leadership or American psychological trends. However, this cannot be done within the compass of this work. This is of greater importance than any study of the matériel of war. Man is the final and decisive matériel in war and his study should come first; but it seldom does. He is taken for granted.

The above shows the complexity which faces the person who studies psychology, with the hope of deriving general prin-

ciples which may be applied to the interpretation of leadership. One has either to accept the opinions of other authors in the field—not the data they present, but their bald opinions—or laboriously dig out, piece by piece, the items which are needed, and test every opinion against data for its true worth. The search for the acquisition of sound data may lead a long way, and into strange fields, but it is necessary unless one is content to rehash old ideas, endorse old doctrines, and repeat old errors.

The Human as a Soldier

The length of time it takes to put the human—just discussed and analyzed—through a process which will make him a soldier, is in dispute, the arguments mainly revolving about the time it takes him to acquire certain military knowledge and skills. Since officers have different standards of performance, naturally, there is a wide difference of opinion.

Discipline is expected to be acquired during this process in some manner not exactly understood. Officers, in this respect, are content to follow certain empirical methods which have served well in the past. The many different definitions of discipline show the confusion about this purely mental quality which exists in the minds of all. Discipline is the foundation of military success, and this was recognized just as keenly in ancient times as today; nevertheless, the word is, at present, almost synonymous with punishment. When the commanding officer directs "disciplinary action" he means—and everybody understands—that punishment is to be meted out. In a true sense of the word, however, with such an order praise could be awarded—although the author knows of no one who has the temerity to try the matter out. Still, psychologists state emphatically, as brought out before, that man's conduct is not governed by fear of punishment or hope of reward. Therefore,

discipline must mean something else, or we must be talking about one thing and meaning another—or are using one word to define two different qualities. The writer does not intend to define discipline—there are too many definitions already—but hopes that some insight into its true nature will be disclosed before the end. The point is mentioned in order to indicate how hazy are our ideas about mental qualities, even when it comes to that basic military virtue—discipline—and although we have been dealing with the quality for some several thousand years. Fortunately, in molding the minds of soldiers, the officer can fall back on the accumulated experience of mankind in warfare; else he would make disastrous errors. But our methods are entirely empirical. It is not only the British who "muddle through" in war.

General Hagood states that a soldier can be taught sufficient skill in the technique of his arm in 10 days. A rather extreme view, but, coming from a distinguished officer on the active list, it must be given some weight. It is not the acquisition of skill, then, that requires the time in making soldiers. Yet, Caesar stated that he had organizations which were unseasoned and undependable after 9 years with the colors. What is it, then, that takes time in making soldiers? Du Picq says that to have a solid army we must have unity, which comes from living together and obeying the same chiefs. It is a unity that cannot be improvised, and which alone produces fighters. It is a union wherein all have confidence in one another and all know that teamwork is necessary. Almost three-quarters of a century ago he stated that—and modern psychologists bear him out—the success of military training is in the acquiring the herd spirit—unit feeling. And the greatest military psychologist of them all, Napoleon, stated of the soldiers at Waterloo, "They had not eaten soup together

long enough." In short, they lack the unity necessary for victory.

It would seem then that the processing which makes a soldier does not essentially consist in teaching him the various military skills, but primarily is based on mental factors too often neglected but which take time to develop. The real job is not to make skilled individuals so much as it is to build closely knit organizations which can fight as units and co-operate with other units. Unless we attain this result we have not made soldiers, although we may produce fighting men, warriors, or gladiators.

In order to readily turn this raw human material into soldiers—members of a cohesive organization—two things are necessary, the first of which is that the men must be homogeneous in mental makeup and cultural background before they arrive. This does not mean racial homogeneity. The Cornishman, for example, is more closely akin to the Corsican than the Englishman, racially. But on this account to combine the two in one organization would be a serious error, because of the radical differences in acquired mental background. This mental homogeneity as made clear before, depends on a common culture and environment which produces a mental processing that makes the individuals subjected to it much alike in psychological reaction. The same symbols will inflame or depress them. Hence, we can say that the soldier is partly made before he reaches the drill field. His "mind patterns" are set by lifelong processing. True, on a small scale, even the most diverse types can be welded into a unit, if given sufficient time and effort—as the French Foreign Legion shows—but no modern army can be so constructed.

The rapid disintegration of Austro-Hungary in the last war [World War I] was—if our analysis is correct—not because of racial differences, but of the almost insurmountable difficulty in trying

to weld different cultural groups into an army. France, with her remarkably heterogeneous population, was welded into one nation by her common culture. People may sometimes deprecate the strongly centralized government of France, but it is possible that with such a mixed population this centralization is necessary in order to secure the uniformity of culture, and the resulting cohesion, which has enabled France to become a great power. Le Bon, on this same ground, speaks of the imperious necessity of centralization in France, and is very likely correct.

The next step in the building of units is the rapid acquiring of a close feeling of unity between the members of the military group. This takes time—the amount of time depending upon how many things in common the men have in their minds when they enter the service. Until this unity is acquired—until they eat soup together long enough—they are only an aggregation of individuals—no matter what their skill in arms—and not an organization. Since man is a herd animal, he will acquire this feeling without coercion. Under military living conditions he cannot help it. It is an instinctive urge which demands satisfaction.

The two stages—civil and military—in the making of the soldier from the raw human material previously outlined, must always be considered. To think that the leader can disregard the civil stage and concentrate on the military stage is a fatal error. Perhaps to this we can attribute the errors made by officers in handling the civilians who make up our war army.

The type of individual we expect to receive, and on whom we build our tactical formations, may not be what we expect. He may differ from the man who fought our previous wars, not because immigration has diluted a noble strain, as Eltinge thought, but because his raw human nature has been molded by the doctrines preached

from the pulpit, or in the newspapers, or taught in the schools, or absorbed from social or business intercourse. Two things enter into warfare: the mechanical tools of war, and the man who wields them. It is important that we have an accurate picture of this man—both fundamentally and as changed by environment.

The Roman Legion was a marvelous instrument of war, because of its great flexibility and general mechanical excellence, but it must never be forgotten that this was only because it exactly fitted the moral character of the Roman people. Roman civil life made that people. The Legion in open order could face anything because the legionary knew the man at his side would not run away. With another nation, such a formation would not be successful, in all probability. History shows that as the Roman character changed so did the Legion, closing its intervals as the Empire degenerated, until it became a phalanx. Toward the end, character not holding the soldier in the ranks, even with shoulder to shoulder contact, horsemen had to be used. For there can be no skulking with the cavalry. The herd instinct of the horse carries the rider along with the mass whether he wants to or not. The lesson is plain: as you change your culture, you change your soldier. Hence, it is important that the influences forming national character, or changing it, be carefully studied. If the author is not mistaken, there is a tendency in our schools to shatter old ideals and old gods without knowing quite what to put in their place. The schoolmaster has in his hand a powerful acid which in a generation or so may dissolve the strong fiber of national character. The schools may turn out great thinkers but poor fighters. More than one writer thinks that this process is already going on.

These problems are not within the province of the minor military leader but certainly they should engage the serious attention of the military statesman.

Developing the Group Feeling

The strictly military problem in the making of a soldier divides itself into two parts. The first is to secure the allegiance of the soldier to the group; and the second to develop in this group, herd or group ideals of military conduct. Considering the first we find it is not so difficult. When men have to eat, sleep, and work together, they will unconsciously and imperceptibly acquire this unity or group feeling. They cannot help themselves. It is congenital in them and the result of their herd instinct. But many things can be done either to hasten or retard this integration.

Nothing gives a man so strong a feeling of being part of a group as seeing it as a complete unit, and actually moving in unison with it, backward and forward, smoothly and confidently, to a measured cadence. The rhythmic crash of 100 boots on the pavement is—to his ears—the veritable footfall of the herd and his being glows with the sense of power which comes to him with the knowledge that he is one with it. Close order drill is a powerful integrating factor. Even the Egyptians knew this. But when the drill is so complicated that the man fears every second that he will do something wrong, which will throw him out of step with the herd and thus prove to all that he really does not belong to it, then it becomes an irksome process and a disintegrating factor. It is doubtful in our old drill if the slower-witted soldier ever became confident in his drilling. This subconsciously made him feel that he did not fully belong.

The old "squads right" and "squads left" was psychologically unsound for this reason alone. It probably was correct mechanically, but humans do not react mechanically or logically. The internal mechanism of the movement was psychologically unsound, since it made certain men in the rear rank actually walk away from their fellows instead of following. Stringent supervision might overcome this,

but not for long. The instinctive tendency of the man was to follow in trace—to cling to the group. The new tentative drill breaks away from this and is not only mechanically sound but takes into consideration the psychological nature of man.

All drill should be simple. It should stress rhythm, and not be engaged in too long. Thus, the soldier recognizes the group, feels himself a part of it, and is rapidly assimilated to the herd. Man's instinctive desire to dress like his fellows is satisfied with a uniform; his desire to think like his fellows should be satisfied by giving him something to think about; that is, interests which all share in common, which interests are expressed by conversation. His physical well-being should be looked after, because being well looked after he thinks he belongs to a group which is of great worth. To think that men always lose morale and confidence because their physical appetites are not satisfied adequately, is a superficial analysis. To the man, poor care indicates that he has poor leaders and is not a member of a worth-while group or herd. Thus, his confidence in his group, both the individuals composing it and the leaders, becomes shaken. As a consequence he loses faith in this greater entity. Without this faith units cannot fight. To think otherwise is to close one's eyes to experience. Men have in the past, and will, in the future, fight to the last ditch even without food or adequate clothing. But in such cases their faith is unshaken; their group spirit arises above any lack of creature comforts; they know that everything has been done; or rather, so strong is their faith in the group, that without definite knowledge they believe that every measure has been taken to care for them. The enemy has prevented their adequate care, and thus their resentment is turned against him. A disintegrating factor is long continued and systematic competitions. Such competitions will secure a

high degree of excellence in messes, police, and the like, but will cause grave evils. At the best it is only a test of officers. Napoleon said that there were no poor organizations but that there were poor commanders.

Some companies with mediocre commanders will consistently lose and, since members of the organizations will not and cannot admit that they belong to an inferior group (if they did the group would fall apart), they place the blame on a prejudiced inspector, a biased colonel, an inefficient staff, cheating by other organizations, or a company commander who is not worthy of leading such a splendid group. The latter is most common and likely to be correct. In these cases the ego group of instincts helps to support the herd instincts, creating a powerful emotional feeling. Any, or all, of these results of competition are disintegrating.

Furthermore, such systematic competitions will lead to a pack of mutually snarling subordinate units, suspicious of all other units. The regimental commander may get a spic and span organization, but only at a high price. He will never command a regiment, but only a collection of mutually hostile subgroups. In time of peace such a method is to be deprecated, to say the least; in war it is fatal, for the regiment must act as a unit, and it is not one.

Informal and occasional competitions, covering a wide range of events, are excellent. The purpose of these competitions should be to give the men something common to talk about, not to grade the companies. They should be in the nature of friendly competitions, leading to considerable laughter and good natured joking and chaffing. Once the competition gets serious and units work for weeks, bend every energy and strain every nerve to win, then such contests become a disintegrating factor. Competition is a two-edged sword which can cut two ways. It

will produce results, but should be used with caution. It is strange that commanders seeing the elation of the one unit which won, do not sense the depression of the many units which lost. Yet, it is an easy way to produce "flashy" surface results and will probably be continued.

The indication of a well-knit herd is pride in the unit, which expresses itself in many ways. The most common in the military service is good drill, good saluting, good messes, clean barracks, good bearing, and clean person. Now, these are but physical qualities, expressing a certain mental feeling of pride, morale, or discipline—call it what you will. It is common to judge this mental quality by grading the units in accordance with their efficiency in these physical qualities. This is an excellent method; provided—and this should be written in letters a foot high—the unit has not, consciously, with the inspection in view, been making deliberate efforts to reach a high grade of efficiency in these particular matters. If so, it then becomes merely a grading of the company commander. To ascertain the mental state of the unit, the leader should pick out other criteria for which no preparation has been made. Thus, the actual worth of the unit, as a unit, can be ascertained; for its standard will be then the common or herd standard of the unit.

In general, without going into a thousand and one details, it may be stated that the rapid development of a group feeling can be accomplished by fostering in the minds of the individuals their common interests—give them something to talk about, something to think about, which is common to all, and have this talking and thinking further their pride in the unit. Hardships or even disaster shared in common will do this. It may be accomplished by some startling act, bringing their unity to the mind of all. Cortez sank his ships after arriving in Mexico, and thus his army had driven home to it

the fact that there was no escaping; each member must depend on the eventual success of the group. That was a highly integrating factor, but negative in nature.

Since humans need something tangible to prove their "oneness," we must give it to them. Soldiers have their uniforms and, to distinguish the smaller herds within the greater, one insignia is worn. Even the nation needs tangible proof of its unity. England has the crown and the royal pageantry; Americans have their flag. It was Bismarck who said that the Germans needed a peg on which to hang their loyalty, and he gave them the imperial house of Hohenzollern.

Once humans become conscious of their identity with a herd, they wish to have proof of their superiority to other herds. They are sure of this superiority, but tangible proof must be on hand to talk about. Thus is the case of nations, history is distorted to prove it, and a flood of books is written to prove the superiority of Celticism, Nordicism, or Anglo-Saxonism. The soldier magnifies the exploits of his regiment, either in the past or in the present, and carefully forgets any blots which may be on the escutcheon. For the purpose of integrating the herds such methods are efficacious, but the careful student must not be misled by their air of truth when studying the nature of man, nations, or the soldier in battle. They are only half truths and distortions.

It is unfortunate that, in our army, more is not made of regimental traditions and history. Putting a coat of arms on a uniform is of no particular value, unless the individual knows what the coat of arms means—and he seldom does. In this, as in many other things, we have copied the form without getting the spirit. The author was told by a wartime officer, once an enlisted man in the Dublin Fusiliers, how the recruit in this regiment was made to learn the entire history of the regiment before he was proficient in

the manual of arms. That is sound psychology. What has been said thus far in this section may be summed up as follows. First, form your herd—under military life you will do this almost involuntarily. Next, give it many things to prove its "oneness." Follow this by giving it something about which it can be proud. Finally—or rather during the entire process—inculcate herd ideals of conduct. This last is not so easy, but is the essence of military training.

Inculcating Group Ideals

A closely knit herd may evolve without high ideals, or perhaps with low ideals, according to military standards. Therefore, in this herd formation, certain ideals of conduct for the individuals should be inculcated. If none are offered to it, it will make its own. Each man of the herd will try to conform to the herd ideals of conduct, but, since human nature is weak, if the ideals be high we can and must expect transgressions. However, and this is the important element, if the transgressor feels shame or guilt because of his actions, then the herd has him in its grasp.

It is of supreme importance that the herd acquire proper ideals of military conduct. We have certain standards of what soldierly conduct is and it is the leader's work to see that these standards become ideals of the herd. In a group already formed with poor ideals, he must be able to change them into good ones—a much more difficult matter than initially inculcating the correct ones.

There will always be a few, who, through human weakness, or failure to be properly amalgamated in the group, will not conform to the standards desired. These must be punished, not so much because the punishment will reform them but because of the effect on the group as a unit. Such punishment is, in reality, a demand of the herd if it has been properly integrated—

not a punishment imposed from without or from above. These latter always are resented.

When there are many transgressions within a unit, it can be said that the ideals of military conduct are low; hence the violations. Many punishments in an organization are taken as an indication of a poor organization. This is sound psychology. The leaders have been remiss, or incapable of implanting the proper standards in the minds of men, not, as is so often thought, in failing to be stern and hard.

The entire matter hinges on putting into the minds of the group certain ideals which eventually they come to think of as being reasonable, sound, sensible, and desirable. The mechanism of doing this will be discussed later. Without this feeling in the mass, the conduct can be regulated only by force, and thus partakes of prison discipline.

To believe that soldiers, in a mass, can ever be governed by force from above is ridiculous. For example, why should soldiers fear the extreme penalty—death—for desertion before battle, when they face a more certain and immediate death in advancing into battle? The soldier, like any human, is governed either by "laying a club on the outside of his head or laying it on the inside." The entire subject of military training is to put this club inside his head, and the means by which this is accomplished is to form herd ideals of conduct, with the leader as the final arbiter of such conduct.

The soldier risks his life and fights tenaciously when he believes that such action is the ideal of his herd. Without this he gives way to the instinct of self-preservation which is ever present and, ever stimulated by the dangers of battle, urges him to run—to get away from it all. The leader is followed, or feared, or loved only because to him the herd has given the power of adjudging whether conduct comes up to herd standards. The indi-

vidual is far more afraid of what his comrades think of him than he is of what his officers think, unless the officers have been accepted as judges of herd conduct. Only when the leader becomes closely identified with the herd and is accepted as a leader, do his decisions carry weight. Then he is all powerful for he is speaking with herd authority.

Perhaps the greatest leader of history said, "I have always marched with the opinion of 5 or 6 million men." He fails to mention how much a share he had in forming these opinions. The point is that he realized that his power came from the herd acceptance of him as the leader.

An example of how this herd feeling works is shown by the following: a sailor left a valve open causing a submarine to sink in 200 feet of water. It seemed that all were doomed, and the sailor tending the valve was nervous and afraid—afraid, not of the death which was imminent, but because he feared his shipmates would censure him or an officer would "bawl him out." That commander certainly was a leader. So closely had he integrated his little herd that the members were more afraid of the opinion of the herd, or the leader of the herd, than they were of immediate death.

Such mental reaction is the goal for which the military leader strives—to integrate his herd and to have it accept him as the leader. The individual then becomes more afraid of the censure of the herd, or the herd leader, than of death itself. In addition, he craves the praise of the herd. Hence, despite the clamor of the instinct of self-preservation, he will risk his life. Without this feeling the leader can do nothing. This is the force which makes masses of men march to almost certain death.

Here we commence to see a dim outline of that which is usually called discipline. In essence it seems to consist of high military ideals planted in a strongly inte-

grated group. The herd opinion of this group is so potent that every member of the group is aware of it—*always and everywhere*—fears it, and strives to conform to it. The leader is accepted as the judge of whether a man measures up to the group standard. The soldier may fear the leader, as the old Greek commander stated, more than the enemy, but only when he is the mouthpiece of the herd. When he ceases to be, the troops will disobey or slaughter him.

When men face the terrors of war, two instincts clash violently. The herd instinct drives them forward into deadly danger, while the instinct of self-preservation urges flight. Therefore, a mental conflict is created. Men of unstable mental equilibrium, or great sensitiveness, cannot stand the internal conflict, and thus arises our group of war neuroses called "shell-shock" cases. The physical flight prohibited by the tenets of the herd is replaced by sickness, which is only another kind of flight.

As stated earlier in this article, it is not reason which overcomes fear but another instinct—the herd instinct—and so strong is this that it can actually cause grave illness in its conflict with the instinct of self-preservation.

How are we going to inculcate the proper military ideals? The first necessity is to have a clear ideal of the standards which are desired. These standards must tie into the ideals of conduct prevalent in civil life, and our methods of punishment must not violate the ideals of the great common herd called the nation. The Romans decimated a legion which showed cowardice in battle. This had the approval of the Roman citizen, or it never would have been used. But any such punishment for our troops would be impossible, so different is the American herd tradition from that of the Roman. From this it can be seen how close is the bond between the citizen and the soldier. One cannot even

think of dealing with the soldier without thinking of the mass from which he came.

In a small regular army one can change almost completely the individual, but in a national army, in time of war, there is neither time nor means to accomplish such a Herculean task.

Once we have clear, clean-cut standards of soldierly conduct, they should be inculcated by suggestion, using the word in its technical sense. It is not meant that one suggests to a soldier that he do something. Not at all. He is ordered to do it. Before we can get the proper type of response, there must be implanted in his mind that any other response would be incorrect. This is the mental background which is developed by suggestion.

Affirmation—pure and simple—kept free from all reasoning is the surest way of planting such ideals. The officer who continually and subtly conveys to his men the thought that their company is the best company in the regiment, that prompt obedience is a soldierly quality, will, in a short time, have all believing it. But the officer who tries to demonstrate this fact logically will never convince them. Suggestion, first, last, and always, is the method of implanting ideals in a group. As a matter of fact, suggestion does not have to be conveyed by word of mouth. It may be conveyed by an interjection, or a gesture, or a lift of the eyebrows. The wordless example the leader gives in dress, deportment, or efficiency, is a potent form of suggestion.

The power of suggestion, as brought out before, depends on the source—the prestige of the individual promulgating it and whether the suggestion is compatible with ideas already in the individual's mind. Here again we see that the civil training of the individual affects the military training. One can never, it seems, divorce the two. Another factor which affects suggestibility is the deficiency of the individual's own knowledge on the subject.

The cardinal feature of opinions formed from suggestion is their fixity, and their self-apparent truth to the holder of the opinion. They have the weight of a religious belief. Opinions based on reason or acquired from experience do not have this primary feeling of certitude. They are not accompanied by the profound feeling of truth which belief possesses. Hence, once we inculcate ideals by suggestion they will have almost the fixity and truth of a religious belief. This is the type of mental furniture which fighting soldiers should have.

Suggestions arising from individuals outside the herd will be given little weight. However, individuals will accept readily and act on any suggestion from within the group. The cry of one member that they are betrayed may cause a panic; the shout of another that the enemy is weakening may cause a surge forward. In either case, there may be no adequate grounds for the action, but the suggestible herd without reasoning breaks into action. This being so it is necessary to implant in the soldier certain standards of conduct under such conditions; for example, he must not move to the rear without orders. But above all he must be sure of his leaders, or else a leader from the mass will spring up and lead the group, possibly to the rear. Nothing must be spared in making the soldier believe in his leaders. Once this belief wavers the herd is unmanageable and is subject to panics. The author believes that the strict segregation between officer and enlisted man is necessary so that the man, by close association, will not see his leader's feet of clay. Some born leaders can mingle freely, but for the officers as a class such a policy would be ruinous. On the other hand, to make a gap too wide would have worse results, for the group then would feel that the leader was an outsider, and accordingly then will not follow him under stress. There is a happy medium, but the author

is not prepared to say that we have secured it.

The reader may have thought that the author has not given enough attention to the instinct of pugnacity. It is thought that this instinct, while perhaps of great value in ancient battles where man faced his foe and battled with sword and spear, does not play such an important part in modern war. In fact, an excess of it may be a disintegrating factor in the group. Too many men of pugnacious temperament cause friction and create cliques or factions. Bravery and pugnacity, taken alone, do not make soldiers. The Roman was not essentially brave. He feared the Gaul as an individual. But Gaul, Briton, or Greek, they all fell before the cohesion of the Roman fighting group. Today, we find that the trained conscript of Japan coming from the nonfighting classes turns out a better soldier than those from the samurai class. And this latter class for a score of generations has been noted for its pugnacity. It is not individual bravery or pugnacity, but the power of combining into tightly knit groups that is the basis of soldiery.

Summary

To summarize the human as a soldier we might say:

1. Humans are made into soldiers by forming them into a closely knit herd. Under normal living conditions a herd will form without coercion.

2. The integration is hastened when all individuals have the same cultural background, when everything is done to bring home to them their essential unity, and everything is suppressed which might create an impression in any mind, however subtly, that the individual is not a part of the group. A large herd may be broken into smaller, loosely bound herds by methods like indiscriminate competition.

3. Since the human herd forms readily once humans are thrown together, and

since each individual will conform to herd standards of conduct, good or bad, it is important that the proper ideals of conduct be implanted while the herd is forming. The individual will react in accordance with his herd ideals—he may sometimes fall short.

4. The power and strength of a leader comes from the herd, by their acceptance of him as the final judge on matters of herd conduct; not, it may be noted, by act of Congress or orders of the War Department. One can command through fear, but when the greater fear of the battlefield arrives, the power of commanding is lost. At this time only the herd leader can control.

5. Ideals of military conduct are inculcated in the herd by the power of suggestion. These suggested ideals will root readily when they come from a high source, when they do not conflict with ideals of the great common herd—the nation, and when the individuals have a scanty knowledge of the matter suggested. Since normal individuals have few ideas of military standards, they will readily accept those offered by the officer class which has prestige. But—note this—if in the nation at large the ideals of the soldier are scorned or deprecated, then a great part of the power of suggestion is lost, since the individual has contrary fixed ideas. China is a good example of this on one hand, and Japan on the other. Hence, suggestions planted by the schools today will affect the soldier of tomorrow.

6. Ideals or standards implanted in the group by suggestion take on the fixity of a religious belief. They are self-evident truths and cannot be reached or changed by reason.

7. The herd instinct is so strong that it can overcome the instinct of self-preservation. It is the power which makes units and holds them together in death.

In the early part of this article leaders were divided into five classes. This is

more or less an arbitrary classification and would probably be subjected to some change on further study. But, for our purposes, the rough classification will suffice. These were:

1. The leader who is intellectually or artistically supreme in his field.
2. The business type of leader, the adroit diplomat who may swerve and twist but never loses sight of his goal.
3. The leader of small groups.
4. The mass leader.
5. The good administrator type, partaking in varying degree of the quality of the first three classes.

The common type of leadership in the peacetime army is the small group leader. Your typical staff officer will partake of the qualities of the business leader, and your expert in the service schools is akin to the leader who is intellectually ahead in his field. True, we have commanders of large groups; but, because of the exigencies of the service, the barracking of the army in small posts, and the continual change of leaders, they seldom have a chance to demonstrate their ability as mass leaders. They are the good administrator type, for that is the quality demanded in a peacetime army. In the peacetime establishment they go far, but in war, unless they have some of the qualities of the mass leader, they are likely to be mediocre or inferior generals. War must be waged with men, and men fight for a leader, not for a thinking machine.

It would be interesting to ascertain by psychological tests—and a good psychologist could devise those—if the duty of administering did not produce psychological qualities antithetical to the development of the qualities of mass leadership. (The example of ex-President Hoover, an admirable executive, shows how inept such types are in a position demanding mass leadership.) Also a test might be devised to determine if continued theoretical work, map problems, and

the like, did not also inhibit this development of mass leadership, by placing the emphasis on theory and material things when it should be on *man*.

The small group leader in peacetime has about the same function as in war. Specifically, he is dealing with men as individuals. The mass leader deals with men as groups, herds, crowds—call them what name you will. The technique is different.

The small group leader knows each individual. Each one is a personality to him. He has to fit him into the scheme of organization. He studies him as a man. His psychological outlook is, therefore, that of a psychiatrist. It is a concentration on individuals and individual psychology.

It well may be that such intense concentration on individual problems unfits him to think of and to handle men in groups and masses. Years are spent in acquiring a technique for doing this job well. The leader thus acquires certain mind patterns himself in dealing with the men. As he molds the group, they mold him. By trial and error he finds out which methods work well, and which ones fail. As the years go by, he accumulates a mind full of small group ideas, and with it a certain mental rigidity. This may well be the cause of the general opinion in the service that too much company service is deleterious, and, therefore, stagnation of promotion is bad.

It is doubtful if the antidote is schools in higher command. These may develop only the intellectual type, and the author has a strong suspicion that such intellectual development does not mean capacity for leadership. Schools may tell the student *what* to do but when it comes to the *how*, he must use men, and these men—and their thoughts and their feelings—may be beyond his ken. And, again, perhaps the years of scholastic atmosphere have stunted the growth of the quality of

mass leadership, which would enable him to inspire masses of men to great deeds. Seldom are our great scholars our great generals. One might also take judicial notice of that.

Most great soldiers did not go through this small group leadership phase. Napoleon, Peter the Great, Frederick the Great, and Conde never led a regiment. Alexander was the son of a king. Hannibal was raised from childhood for high command. It is generally believed that it is the hardening effects of age and the consequent physical and mental deterioration which cause the failure of leaders of middle age to rise to fame. There is no doubt that the greatest leaders have been young. But to conclude that age is the main factor is questionable.

It would seem that it is not age alone, but rather long years spent in the military service, commanding small units and becoming *small group minded*. Caesar entered an active military career late in life, gaining his first great victory over Vercingetorix at the age of 42. From there he climbed to dizzy heights. It will be noted in reading his life, that, as a young man, he did not go through a continuous military processing. Caesar, prior to his experiences in Gaul, was a first-class politician, not a professional soldier.

When the small group leader in our Army steps up in time of emergency and assumes command of a large unit, the technique which he acquired in dealing with his small unit is of little avail. Yet, it is his only equipment for handling men, and, unfortunately, the method of impressing his personality on this larger unit is vastly different. No more can man-to-man relations be maintained. It is an impossibility because of the size of the group. However, if the leader is old, and rigidly set by long and successful experience, both he and the organization are in an unfortunate position because the large herd—as the small one—must feel the presence of the leader, and lean on

him, fear him, and love him all at once; and the tragedy comes when the leader does not know how to foster this feeling.

If the leader cannot develop this feeling, he will find the unit deficient in battle, although if he is a good administrator, he may produce a smartly turned out organization. He does this by dealing with a few commanders, and the old technique still serves, but to the far away machine gunner or cannoneer he is but a name and often less than that.

The large unit is a hollow shell. If it fights at all, it will be because of the individual efforts of small subordinate units working for their immediate commander—not for the large unit commander. The bulldog courage and the affection of the men for their individual unit may carry the higher commander far. But let him come up against a mass leader equally and the result is a foregone conclusion. The leader should be a maintainer of morale, and he cannot do this unless he knows the technique of dealing with men in the mass.

However, since he cannot impress his personality on his command by direct contact, how can he do it? Let us be frank here. He dramatizes himself, consciously or unconsciously. Perhaps he is that fortunate and rare man who outwardly has the qualities which the herd thinks distinguish the leader. Every herd has such ideals. All great leaders have dramatized themselves or have been dramatized by their people. The strong, silent doggedness of Grant fitted the American ideal of a leader exactly; he needed to do nothing about it. Having sufficient skill to win a few victories, he was established. He had that skill. Kitchener fitted the British ideal in World War I and kept his place to the end, but it is doubtful if he were a great soldier. The herd seldom bothers about that.

Other leaders, however, are not so fortunate. They must dramatize themselves in some way. What was more dramatic

than Sheridan's wild ride to Winchester? Why did Custer wear his yellow hair long? Caesar was very dramatic when he dashed on foot in front of the fleeing lines at Munda and cried, "See what a chief you are about to betray and on what an occasion." He secured the immediate result, but the drama of his act fixed his personality on the troops. Such acts made Caesar, as truly as his skill in war. Take Ney, standing in his stirrups calm and impassive under fire, calling to his broken soldiers, "Death strikes only those who hesitate! Look at me! It has not struck me!" The soldiers who saw that, or heard of it later, never lost the image of Ney. The calm Washington rode out between the lines at Princeton, fully exposed to the volleys, in order to steady his men. He secured his immediate result, but on that group he impressed his personality for a lifetime. All this is drama.

How the modern commanders will be able to impress their personality on the huge national armies of the next war will be a serious problem, but it must be done and the method of doing it is worth fully as much as all the research going on in all the armies. How this personality can be impressed on the mass during training prior to war is a vital question.

Napoleon's habit of haranguing his troops, according to Eltinge, would produce only disgust and derision in American troops. This is to be doubted. Lord Wolseley believed that the same or similar methods would work wonders with British troops, and believed such methods would open a new era of victory for Great Britain.

Anyone who has heard a political mass leader—like Alfred E. Smith—create a veritable frenzy in a crowd and have a great group cling to him even in a disastrous defeat, will seriously doubt whether Americans cannot be aroused by the power of words to do great deeds. It must be remembered that the army is like the people from which it comes. This is

not a plea for oratorical officers, but an attempt to indicate how our faulty conception of human qualities, and our acceptance of such ideas as "racial psychology," permit us to leave neglected a powerful engine of leadership.

Napoleon played on the thoughts in the minds of his men. With different thoughts in these minds he would have used a different approach. To think that we react much differently from the French or other nations, is a form of national superciliousness that will surely lead to crooked thinking. We must get away from the pernicious and lazy habit of attributing anything inexplicable in other nations to race. As brought out before, there is little to this contention in European nations. But the molding which the human receives is of vital importance.

The commanders of large masses in our future wars must, more and more, rely on that force which politicians and revivalists use so successfully, repugnant as it may seem to those of us who have grown into the man-to-man attitude. If this arouses an adverse reaction in the mind of the reader, he can be sure that he recoils instinctively, and the emotion is clear evidence that his opinion is a non-rational one, based on inadequate data. This is true in spite of the fact that his opinion may be correct and the author's wrong. Strong emotion is always an evidence of nonrational opinions.

The mass leader, if successful, must have not only the power of arousing men and sealing them to him, but he must be able to sense when this enthusiasm lags, when the bond between the two is loosening and needs tightening, and how much strain his group will stand before breaking. Caesar often appeared rash and at Alexandria he almost met disaster, but he counted on his men and they always gave more than normal performance. He knew his stouthearted legionary. Lee often appeared to take chances but he knew his men. It is doubtful if America ever

produced a greater military mass leader than Lee. His name in the South is revered with something akin to idolatry, even today. With closely knit masses—inspired by a mass leader—chances can be taken which would be folly with loosely knit organizations.

Napoleon has been criticized for the close formation of his attack at Wagram. Military geometers can, with pencil and paper, show how it was all wrong, even if it succeeded. But it must be remembered that Napoleon was striving to win a battle, and used—in the most skilled manner he knew—the human material which he had in order to achieve this result. He was not illustrating a textbook. The troops at Wagram were not the seasoned soldiers of his earlier wars. They may have needed the shoulder-to-shoulder contact afforded by the column in order to realize their unity and advance. Out of 22,000 men at least 12,000 were shirkers; 1,500 to 3,000 reached the position. Certainly they were a poorly integrated unit. In a scattered formation they would not have reached the position at all. It was good leadership to use such a formation, even if the tactics were theoretically poor. This serves to illustrate that the mechanical interpretation of battles may lead us into grave errors regarding leadership, generalship, and tactics.

We can have pure mathematics—a subject divorced from life—but there can be no such thing as pure tactics; for tactics must always deal with men.

It would be instructive to analyze the battles and campaigns of the great captains and endeavor to ascertain just how much their success depended on their tactical dispositions and how much depended on their ability to arouse their men to do the more than human thing.

Cannae is a classic battle; yet the conception was simple, and, what is more, judged by any standards of material values, it was exceedingly rash, if not

foolhardy. To make a double envelopment of a superior force with a vastly inferior one, particularly when the hostile force was composed of hard fighting Roman Legions, cannot be justified by any material standards. Yet, such was Hannibal's scheme of maneuver. Everything depended on how much pressure, chiefly moral, the heavily armed Carthaginian foot soldier could withstand when the Gauls and Spanish broke. But Hannibal had gauged the mental powers of his Carthaginians and Gauls to a nicety, and he took advantage of the strength and weakness in both. A little more pressure, particularly of a mental type, and the Carthaginians might have fled; for mental pressure was terrific in ancient battles. But they did not; a great battle was won, and a great captain was made. Yet, what pair of scales can weigh the tactical and moral elements of the battle and say which decided the issue? Was Hannibal great because he conceived a reckless plan—judging by material factors—or did his greatness lie in his ability to inspire his troops, and to judge with remarkable accuracy the mental pressure they could stand? Certainly the problem is plain, but even such a great military historian as Von Schlieffen studiously avoids analyzing it and is content to consider in detail the physical dispositions of the troops. Yet, by all the rules of material combat, Hannibal's plan could not possibly succeed, so rash was it; yet it did. Du Picq, a far more penetrating student into the mind of man, considers that Hannibal's greatness consists in "his admirable comprehension of the morale of combat; of the morale of the soldier, whether his own or the enemy's." The insight and logic lie with the Frenchman, and this may throw some light on why Germany lost the war [World War I]. Perfect in material things, the Germans consistently neglected the moral factors, both civil and military. Thus, the home front had been beaten, not the army.

A leader who can arouse his men to extraordinary efforts can make his own tactics. There is no great feat in beating another general, for example, if you can march 2 miles to his 1 mile. Jackson's Shenandoah Campaign—with its tremendous marches—is looked upon as a masterpiece of generalship; whereas, it was a masterpiece of leadership. The difficulty here is not to plan such a movement, for any hack staff officer could accomplish that. The accomplishment is to march the troops the necessary distance for such a feat requires leadership that is akin to genius. This execution of the plan, with soldiers, is far more important than the plan. But one seldom hears that portion analyzed or even mentioned.

To the popular—and map room—conception of a general, which sees him moving bodies of men about the map in the manner of a chess player, we may add a complimentary picture—that of the general as a wary doctor with his finger on the fluttering pulse of a patient, waiting for the proper moment to give him a hypodermic of digitalis. The patient is the army and the general must be ever ready to keep it from dying on his hands, by an injection of leadership.

Military history is filled with the geometrical interpretations of battle. The study of the formations is excellent. But who is formed into the line of battle? Who moves in accordance with the plan? Men—they execute the plan and yet we carefully avoid their place in the scheme. We seek desperately to find some material factor to which we can ascribe the victory; whereas, it is probably some mental factor which is most involved. The Prussians of Frederick the Great were supposed to have secured their victories by the rapidity of fire, gained by the long and rigorous training of the soldiers in loading their muskets. So says the material interpreter of battles. But Marshal Saxe noted that in the last five battles there were more Prussians than adversar-

ies killed by rifle fire. That would discount the material explanation. The answer was morale. The soldier mechanically going through the movements of loading had little time to think of danger and, consequently, could resist panic longer. That shrewd soldier, Marshal Saxe, drew this conclusion, which seems correct. This material conception of battles has thrown our entire conception of tactics out of perspective; but worse yet, it has given us an erroneous picture of a leader. We pore over maps to ascertain by what strange geometrical combination great generals secured their victories; whereas, it is more than likely that the victories lie in the realm of leadership. Leadership—that power of executing plans through and with men—is what makes great battle leaders and great generals. It is impossible to see how one can escape this conclusion with the modern doctrine that the enemy army is the objective of all maneuver. For the destruction of the enemy means battles, and battles mean the utilization of men.

Attempts often have been made to study the great military leaders and to ascertain the points in common which might be used as a basis for the study of leadership. So far as the author knows—and he has looked far—nothing has come of this. Even in the greatest of all captains, Alexander, Hannibal, Caesar, and Napoleon, it would be hard to find common psychological qualities. They all differ markedly except that they were marvelously successful in battle. We can say they are geniuses and defy analysis, but that is begging the question. But let us take leaders of a secondary class; can we find some common qualities in them?

What is there in common among the following: Saint Cyr, glacial, secretive, unsympathetic but loyal, who looked upon his men as tools of war only, and was reproached for thinking too little of them; Kellerman, brave, calm, formal, cautious, and stiff, but with conceit enough to be-

lieve himself the first general in Europe; Soult, hard to handle and not noted for his loyalty; Desaix, soft spoken, clean of speech, blushing at indecent expressions, imperturbable under heaviest fire, and cheery and voluble with his staff; Ney, hard to handle, of great valor and intelligence, intrepid, but with no strong sense of loyalty; Davout, loyal, who thought of his men first, and to whom discipline and order were everything. Yet, all these men, of the same nation and under the same conditions, in the hard school of war, were so successful that they were selected by one of the greatest captains, Napoleon, to lead his armies. Their only point in common seems to be that they, too, were successful on the battlefield.

There may be gold for the investigator at the end of this trail, but preliminary work must be done. We must determine what are our standards for leaders; what psychological material they had to handle. For example, one cannot compare, with any accuracy, Marius, Belisarius, Gustavus Adolphus, Ney, and Frederick the Great—to name a few of the lesser captains—unless we know what type of men each had to accomplish his tasks, and how each utilized their good qualities and what measures he took to overcome the bad qualities. An inferior Roman general could, and often did, defeat a superior general because of the dogged fighting quality of his subordinate units. Because of this Pompey would probably look big in history, if Caesar had not lived in the same era. In Pompey's case we would be giving credit to a general which properly belonged to the national character.

After clearing that ground, we must divorce leadership from generalship, which is an entirely different quality. When the two happen together, we get a great soldier. Then we must take into account the size of the masses involved. It is a large order and can only be filled by conscientious, detailed, and scientific study, which will range far outside the

strictly military field and into sociology, psychology, national mores, social history, national customs, ideals and traditions, and, perhaps, racial origins. It is far beyond the scope of this article.

Even taking the great captains of the Western World: Alexander, Caesar, Hannibal, and Napoleon, we cannot make a comparison without a great many qualifications. Alexander, Caesar, and Hannibal commanded relatively small armies, seldom over 100,000 men. Could they have impressed themselves on larger masses on the battlefield? It is gratuitous to assume that they are equal in this respect. But one man could and did. Napoleon's Grande Armée was over 200,000 men and he led into Russia an Army of 500,000 or more from different nations. Can it be that part of his defeat was due to the difficulty in impressing himself on this heterogeneous mass? It would seem so, for later in 1814, with a smaller force, he conducted one of his most brilliant campaigns. Study may throw some light on this, and such study is needed since future armies will be tremendous in size.

Hannibal had an army of mercenaries matched against the greatest soldiers in the ancient world, and he led them to victory after victory. Alexander had an army of Greeks, similar by tradition and custom. Caesar had the hard-fighting legionary, coming from a sturdy military society. Napoleon led first an undisciplined but patriotic army of revolution, and finally a huge polyglot army of many small nations. How, then, can we get a picture of leadership, how can we analyze its component qualities, unless we know in detail about the man being led?

Yet, strange to say, military writers often fall into this error. Hannibal gets a demerit because he seemed to be deficient in siegecraft; Caesar because he sometimes took chances; Alexander for his impetuosity; and Napoleon for his use of masses during the latter days of the First Empire. Now, all these may be explained

on psychological grounds and, instead of standing as blemishes, may be evidence of a keen leadership, as was noted before in Napoleon's use of masses.

Detailed analyses are made of the physical disposition for battle, but who will rise and make the same detailed analyses of the men who fight the battles—how they were processed in civil life, how they were bound into military organizations—and then calculate the effect on the overall battle scheme? The dispositions and the man—how much time we spend on the former and how little on the latter. Yet, one small fanatical fighting organization may win a battle, and one loosely knit one may lose it. The most perfect dispositions in the world never won a battle without tightly knit organizations to fight it.

Unless we scrutinize every military idea, formation, appliance, tradition, and regulation, in the light of modern psychology; unless we make a careful study of our national life and institutions; unless we analyze military history from the viewpoint of man rather than that of the geometrician or chess player, we never can have a truly scientific basis for teaching leadership. It will be all opinions and no fact.

The order is a large one and one which cannot be fulfilled by this article, even if the author had the ability to do it. However, *this* may be pointed out: since battles in the future will be fought by large masses—perhaps greater than known in the World War [World War I], it would seem in error to concentrate on the leadership of the great captains of the past. (This may be treason.) They usually fought with small armies, according to modern opinions, and the methods they used to impress their leadership would not be effective on the huge modern armies. They may serve to point a moral for the smaller leaders, but not the army and army-group leaders of the future. After all, leaving generalship aside, so far as leadership is concerned, Caesar, Hanni-

bal, and Alexander were only good battle leaders of small units. And this was true of almost all military leaders until the rise of Napoleon. With him came large mass leadership.

There is one exception to this. In the East the gigantic—almost legendary—figure of Genghis Khan appears. How did he lead such huge masses, and from the roof of the world send his "tumans" galloping to the four corners of the earth, to conquer all in their path, until finally he became the "Emperor of all men"? His technique of leadership—if it could be studied and analyzed—would be of more value to the modern soldier than any exact knowledge of the leadership of Saxe, Turenne, Gustavus Adolphus, Caesar, Alexander, Hannibal, Belisarius, or all the rest. For he led huge masses of different nations and tribes, impressed his personality upon them, and from a fugitive youth became the lord of Asia. It is the epic of Napoleon on a grander scale.

Conclusions

To come to definite and general conclusions is difficult. Of the four tasks originally assumed, the first one, that of clearing the ground, has, perhaps, taken a disproportionate space, but it is believed that it was necessary and that some needed progress has been made. The conclusions regarding this have been drawn during the course of the exposition without summing them up in a separate section. The psychological nature of man—and the modifications wrought in it by cultural or environmental factors—have been developed and summed up in one entire section. It is needless to recapitulate here.

An effort has been made to indicate how the human material is converted into soldiers. The conclusions of this section need no repetition. The author wishes to make it plain that these conclusions are in no sense dogmatic but rather a synthesis of the opinion of the best military psycholo-

gists, modern psychological principles, and the author's own matured thought. He has taken the man in the service as he knows him, tried to analyze him, apply modern psychology to explain his reactions, and draw his own conclusions, paying due attention to the empirical principles of the greatest of military thinkers. The conclusions can be accepted as tentative, only subject to test and to change as new data is discovered.

The fourth task, that of analyzing the role of leadership in military organizations, which could be discussed only after the other tasks were out of the way, has by no means been satisfactorily accomplished in a strict scientific sense; nor can it be with the material on hand. As indicated, the scope of this subject is vast. It will take a tremendous amount of "spade work" to unearth a few nuggets. At present we have only opinions on the subject, and opinions are worthless when facts may be obtained. Facts are obtainable, but only at a great expense of time and labor. This article only outlines the project.

However, the author is prepared to offer a few conclusions regarding leadership, not with the idea in mind that they have been proved, but as a theory, strongly buttressed, of the underlying mechanism of leadership. This by future study may be amplified, clarified, improved, or considerably modified.

These general and—it always must be remembered—tentative conclusions are:

1. Man's conduct is governed by instinct, not reason.

2. Differences in national psychology are due mainly to national tradition and culture—not race.

3. The making of the human into a soldier depends on utilizing to the fullest extent the herd instinct of man.

4. A soldier is a herd-conscious individual, impregnated with certain soldierly ideals—not a pugnacious warrior.

5. Leaders derive their power from

their acceptance by the herd as leaders and judges of herd conduct. The primary duty of the military leader is to inculcate proper ideals of military conduct.

6. Leadership and generalship are two different qualities.

7. Leadership may be, and perhaps is, the most potent factor in winning battles; generalship taking second place.

8. The problem of the small group leader calls for a different technique than that of the mass leader, which technique may render the small leader unfit for being a mass leader.

9. Mass leaders are not likely to develop under our present military system, and there is a strong suspicion that they do not flower under any military system.

10. The mass military leader and certain mass civilian leaders have much the same qualities—the power of arousing the minds of men and directing them to a common purpose. In essence they both make the mass *desire* to do the thing required, rather than drive them to do it.

In addition, the following conclusions are drawn as to profitable fields for exploration and study:

1. Military history: the concentration on the study of men and groups in battle instead of the study of the geometrical formation for combat.

2. The study of the exact role played in battle by the factor of leadership and the factor of generalship, in order to determine just which caused the success or failure of the combatants.

3. A study of the technique of leadership for dealing with our future huge war armies. Can we expect that it will be different from that of the leadership of Caesar or Hannibal? What difference, if any, is there between the leadership of a division, corps, army, or army-group commander, and that of a regimental or brigade commander? The author would expect to find differences, but for the degree or kind of differences he has only a theory. What are the facts?

THE HEART OF THE MATTER

Captain Herbert Avedon, *Signal Corps*
S3, 6th Radio Broadcasting and Leaflet Group, Psychological
Warfare Center, Fort Bragg, North Carolina

The views expressed in this article are the author's and are not necessarily those of the Department of the Army or the Command and General Staff College.—The Editor.

CREDIBILITY is to psychological warfare what cohesiveness is to an army—both the psywar and the combat unit fall apart without it. This is the heart of the matter. More than mere plausibility, there is manifest a delicate exudation of believableness, of probability, of a capability of being credited—there are these which are the stout gossamer, the intangible steel of credibility. Credibility, glowing jewel without price and basic ore, provides for a grudging acceptance, almost warrants an unacknowledged receipt, by an enemy mind, of friendly thought emanations.

If psychological warfare emanations are to reach enemy minds, they must be presumptive of the truth; not the truth as we know it, but the truth as the enemy may understand it, for strange truths are stranger than true.

This is the heart of the matter, then. Friendly psychological warfare dissemination must be steeped in—must be cloaked in, must give off, must read, sound, look, smell, must fairly reek—credibility.

This, then, is the heart of the matter—psychological warfare must be credible.

Reference is made to the standard works on psychological warfare and data from the principal psywar training agency—the Psychological Warfare Center at Fort Bragg, North Carolina—which, in the main, give ample emphasis to the all-important credibility factor. None of them known to this observer, however, devote appreciable space to the amount of time it takes to actually achieve this elusive, difficult to create, factor—credibility. There is insufficient room here for the many definitions of credibility in psychological warfare which may be summed up briefly as the degree to which friendly psychological warfare is believable by its target. The intention here is, rather, to stress a seemingly unrecognized need for establishing credibility in psywar and to emphasize that psywar planning too frequently does not consider that it takes sizable segments of time to create a factor—credibility—without which it is impossible to conduct effective psychological warfare operations at any level, of any type.

If it would be granted that establishment of credibility is a preliminary to the unleashing of more telling blows of the friendly psywar attack, it would then become merely necessary to satisfactorily adjust that requirement to the planned programming. It is submitted here from observations made in the field of psychological warfare since 1944, however, that

Friendly psywar is credible to the degree the enemy admits—however grudgingly—to the truthfulness or possibility of as many facts as we may force upon him. Friendly psywar is worthless unless it is credible

few propagandists grant such a premise. Most concur with those who exhort psywar personnel to "hit 'em where it hurts" and "never mind all that stuff, tell it to them straight from the shoulder." It is with this latter school that this article takes exception, hoping to emphasize that only by making friendly psywar highly credible may we actually "hit 'em where it hurts" and that "straight from the shoulder" is neither the most direct route to enemy minds nor the most effective maneuver by which the latter may be reached.

Actually, there is no clearly defined rule concerning the amount of time it takes to establish credibility. The target audience and circumstances, obviously, indicate the time—and even then you may not know whether or not credibility has been satisfactorily established. Experience in psychological warfare operations and similar fields, in addition to a knowledge of the target group, will lead, however, to recognition of the indices by which it may be estimated whether or not credibility has been established.

What must be remembered is that members of a particular military target group—especially those under Communist domination—would have been warned that they would be propagandized by friendly forces. Future targets will have been told that friendly emanations will be lies, gross exaggerations, fraudulent reasoning, and, generally, a despicable technique to separate the targets from all that they hold dear. Against such preparation, it would

Captain Herbert Avedon, author of "War For Men's Minds" which appeared in the March 1954 issue of the MILITARY REVIEW, served with the 1st Ranger Battalion in Sicily and Italy, and with the Office of Strategic Services in Burma during World War II. He was Assistant Projects Branch Chief with Eighth Army Psychological Warfare Division, G3, in Korea, and is presently the S3 of the 6th Radio Broadcasting and Leaflet Group, Psychological Warfare Center, Fort Bragg, North Carolina.

seem the height of folly to immediately disseminate expected friendly views, policies, goals, and similar propaganda.

Building Credibility

To the contrary, all psywar media must make use of tactics which will build credibility—make friendly emanations believable—despite and against enemy forewarnings. It would be far better that vocal propaganda dissemination, for example, be limited to music, weather reports, and other similarly innocuous appearing transmissions *to the total exclusion of any other propaganda*. Written dissemination—and vocal, too, of course—might profitably present news so slanted away from the friendly viewpoint, that it would report only matters already known to members of the target groups and report those matters precisely as they had been previously reported to the target by its own propaganda machine. Further—and to illustrate the lengths to which friendly propagandists must go to arm their output with all-important credibility—it might be an extraordinarily effective tactic, for example, to disseminate on enemy troops, psywar which might be nothing more than a paper chess board, a few cigarettes, perhaps, or some simple holiday greetings. This would be done before even the enemy-slanted plus other innocuous seeming news would be propagated. The latter favorable appearing emanations would be varied infinitely as suited the propagandists and the requirements of the given tactical or political situation.

This type of credibility-building dissemination would be kept up for comparatively lengthy periods of time; ideally, until prisoner of war or refugee reports indicate a high degree of acceptance—credibility—of friendly psywar. Note that it is by such apparently "aid-and-comfort-to-the-enemy" activities that definite victories have been won, for the enemy target group has been told that friendly psywar

would disseminate lies and it obviously has not despite the warnings by political officers among the enemy that it would. Enemy authority would then lose face to a degree in the target's eyes and the first tiny seeds of doubt would have thus been sown—most important, friendly propaganda has been believed. Thus, we have achieved credibility to a degree—a slight degree, to be sure—but in a quantity that is possessed of the dimension of tangibility—a slight degree, but a degree which is measurable.

Next, the credibility-minded propagandist would attempt to subtly and slowly allow the friendly viewpoint to seep in—bearing in mind at all times that credibility must be firmly established before one's attack may produce rewarding results. It must be maintained until the end of hostilities, and begun again at that time against a target audience with a new viewpoint, and so be maintained forever.

But long before that happy time, our forces must have established among the enemy that what we say is true. When that time has arrived, when the enemy believes that that which we say is true, the enemy's propaganda to his own people has begun to be viewed with doubt. From then on, friendly psywar personnel closely follow the plan which ultimately converts doubt into suspicion, suspicion into disaffection, and the latter, eventually and toward the end of hostilities, into the various forms of defection—which range from malingering and disobediences, all the way to desertion, surrender, sabotage, espionage, and treason.

Loyalties to Doubts

Of the successive steps to complete subversion of enemy minds by the methods known presently as psychological warfare, possibly the most difficult, certainly the key step, is conversion of traditional enemy loyalties into doubts. Here we have an approaching psychological phenomenon

of marked change, an incipient disassociation of an individual from his primary social group. Achievement of this key step toward subversion takes time, appreciable time. And establishment of credibility, which must come first—and be forever maintained—is also a matter of weeks, months, and more. Under certain circumstances, for example, it is postulated that a psywar loudspeaker campaign on a static front might make its intensive attempt to establish preliminary credibility for a period of from 4 to 6 weeks by making broadcasts several times a day. Some types of radio as well as loudspeaker programs—bent on a similar establishment of preliminary credibility—might, at first, offer the target audience little more than something like music which is indigenous to the target group—preferably music which the target might be denied by existing authority included in acceptable-to-the-enemy-authority varieties; innocuous news intermixed with news favorable, to a slight degree, to the target group; weather reports, household hints, humor, and educational and similar information. This type of programming might ensue for a lengthy period—2 to 3 months for a radio program, 4 to 6 weeks for the loudspeaker medium—before friendly propagandists would allow news less favorable to the enemy to be mixed with the same kind of news which the target might have been hearing for the past “credibility buildup” period. In the basic interests of maintaining credibility, the innocuous, enemy-favoring type of news would be kept up continuously, even after the preliminary buildup. This tactic would be continued, too, to offset probable enemy counterpropaganda which would then—were high friendly credibility not maintained—be able to point out the change and brand the new category of friendly propaganda as lies as it did originally. Similar tactics would be used with the other psywar media.

Transmittal of news somewhat favorable to the enemy or bearing out that which, in the interests of maintaining credibility, his own propaganda might state and in contradistinction to news seriously harmful to the friendly side—is a perfect tactic to make the target lose some faith in his own propaganda. For if the enemy claims everything friendly psywar disseminates is a lie, how then can he reconcile that much of our transmissions and drops are very apparently not lies; that much of our output is the truth precisely as stated by the opposing (enemy) propaganda? How are music—pleasant music—or weather reports a lie? How, then, are our emanations a lie?

It may be admitted by some that that which apparently does not harm the enemy, even that which apparently supports enemy views, may be considered as aid and comfort to the enemy. But, if such tactics are, indeed, aid and comfort to the enemy, it is submitted that refraining from killing a single enemy infantryman lined up in one's rifle sights is aiding and comforting the enemy even though one might happen to have been patiently waiting until all of a slowly advancing enemy patrol might have come into view and become an artillery target. The point is, that which short-sighted persons consider aid and comfort to the enemy because it apparently does not harm him, because it apparently supports him—does precisely that. What must be realized is that such apparent lack of harm, such apparent support, is actually serious—appreciable harm to the enemy despite its

innocuous appearance. For by causing the enemy to believe us, by thus establishing credibility—and there is no more certain method—the enemy accepts our propaganda, which is just what we have labored for—to make the enemy believe what we say.

Conclusion

It is axiomatic that psychological warfare cannot subvert enemy minds unless it is considered credible by those minds long before an attempt to sway them in any given direction is made. Again, those minds cannot be swayed unless that which attempts to sway them is credible to those minds. Further, a psywar victory has been gained when the target group listens to or reads friendly psywar dissemination. An even greater victory has been won when a member of the target group, upon hearing or reading a friendly emanation, questions that which his own propaganda has stated by remarking to himself, in effect, "This enemy stuff is true—everybody (here) knows it."

Friendly psywar is credible to the degree the enemy admits, however grudgingly, to the truthfulness or possibility of as many facts as we may force upon him. Friendly psywar is worthless unless it is credible.

Finally, achievement of credibility takes an appreciable length of time—more time than there usually is available. Establishment of friendly psychological warfare credibility requires courage—courage and an outstanding ability to outargue dissenting opinion. This is the heart of the matter.

If you are moving, please notify the MILITARY REVIEW, Fort Leavenworth, Kansas, of your change of address. Be sure to include your name, *old* address, and *new* address.

MILITARY NOTES

AROUND THE WORLD

UNITED STATES

Rotation

The Army's new rotation system, termed Operation *Gyroscope*—rotation with stability—is scheduled to begin next July with the 10th Infantry Division from Fort Riley, Kansas, replacing the 1st Infantry Division now stationed in Wurzburg, Germany. Also selected for rotation during the same period are two airborne regimental combat teams, the 508th at Fort Campbell, Kentucky, and the 187th in Japan; and two armored cavalry regiments, the 3d at Fort Meade, Maryland, and the 2d in Nürnberg, Germany. Under the new plan, the 1st Division will be replaced in three regimental combat team increments, with the first shift to take place in July. A total of eight divisions are expected to be rotated each year—four sent overseas to replace four sent home. Nearly 4 years will be required to complete a rotation cycle of all divisions.

According to the report, the new system is designed to give greater stability to the career soldiers of the Army in the form of fewer moves, more settled conditions, and fewer family separations. As part of the plan, each division will have a permanent stateside station to which it will return after its overseas tour.—News release.

Command Management School

To provide 3-week courses in the field of management, the Army has established the Command Management School for senior Army officers at Fort Belvoir, Virginia. Established primarily for installation commanders and senior staff officers, the objective of the new school is to raise the general level of management throughout the Army through a broader understanding of modern management practices as applicable to Army problems. Approximately 50 Army officers will be selected to attend each class. The operation of the new school has been patterned after the Advanced Management Program of Harvard University.—News release.

Address Change

In the future, letters and packages carrying an APO address will require only three lines instead of four. The phrase "c/o Postmaster" has been eliminated in the first change in APO address procedure since June 1941. The new address must be contained in three lines, with the last line indicating both the APO number and stateside post office, in order to expedite APO distributions, according to military postal officials.—News release.

Code Names

For purposes of identification, a system of code names for various current Soviet aircraft types has been adopted by the Air Force to supplement the type numbers which have been allocated to each new type as it appeared. The code-name system was used by the allies during World War II for Japanese aircraft which, like the Soviet types, had obscure designations. Code names for Soviet aircraft are in three classes, beginning with *B* for bombers, *F* for fighters, and *C* for transports.

Names used so far are:

Bombers: Bison, the 4-jet, swept-wing bomber; Badger, a twin-jet, swept-wing bomber; Butcher, the *Ilyushin Il 28*, a twin-jet, straight-wing bomber widely used; Bosun, a twin-jet, straight-wing bomber used by the Soviet Navy; Bull, the *Tupolev Tu 4*, a copy of the *B-29*; Bob, the *Ilyushin Il 4*, an obsolete piston-engine bomber; Buck, the *Petyakov Pe 2* piston-engine light bomber; Beast, the *Ilyushin Il 10* single-engine, ground-attack bomber; and Bat, the *Tupolev Tu 2* piston-engine bomber.

Fighters: Fang, the *Lavochkin La 11* piston-engine fighter; and Frank, the *Yak 9* piston-engine fighter.

Transports: Coach, the *Ilyushin Il 12* twin-engine civil and military transport.—*The Aeroplane*.

Long-Range Missile

The Army's long-range ground-to-ground missile, the *Redstone*, is to be placed in limited production soon. The missile is still under a security classification and none of its characteristics or capabilities have been made public. Named for Redstone Arsenal, Alabama, where it was designed and is being perfected, this is the Army's third guided missile. The others are *Nike* used in anti-aircraft defense, and the *Corporal* for battlefield employment.—News release.

Control System

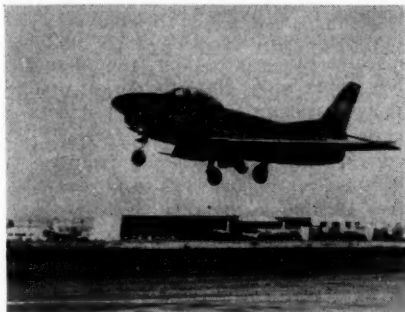
A combination of radar, computer, and tracking-while-scanning devices, known as *Volscan*, provides a revolutionary air traffic control system which is to be installed at three military airbases in this country. The new unit does not replace Ground Control Approach (GCA), or Instrument Landing System (ILS), but exercises long-range control over incoming aircraft, directing them until they have reached the point of final approach to the runway where the pilot either lands visually, or uses GCA or ILS. It can guide aircraft into the final approach to a base at precise intervals of 30 seconds, and virtually eliminate the problem of "stacking up" over heavily used airbases according to available information.—News release.

Fire Truck

A new military fire truck, designed to operate efficiently in temperatures ranging from 65 degrees below zero to 125 degrees above, is being tested by the Corps of Engineers' Research and Development Laboratories. The truck features a completely inclosed cab which is large enough to accommodate six fully equipped men. All equipment is inclosed in heated, insulated compartments. Heat is supplied by an automatic gasoline-fired electrically controlled coolant heater. The truck is powered by a 300 horsepower rear engine and is expected to negotiate rough terrain, as well as some of the most mobile military wheeled vehicles now in use. It has 4-wheel drive with self-locking differentials, spring supported double reduction drives, and a 3-speed transmission with torque converter. The truck also has an integral frame and a body constructed of lightweight aluminum. It carries a 750-gallon water tank and a 150-gallon foam tank. Its pump can deliver 500 gallons of water a minute and 50 gallons of high pressure water fog a minute.—News release.

Cannon-Armed Fighter

A new fighter, the *F-86K*, is almost identical in appearance to the rocket-firing *F-86D* except for an addition of 8 inches to the length of the fuselage. Its chief difference is armament which consists of four 20-mm cannon instead



Cannon-firing version of the *Sabre Jet*.

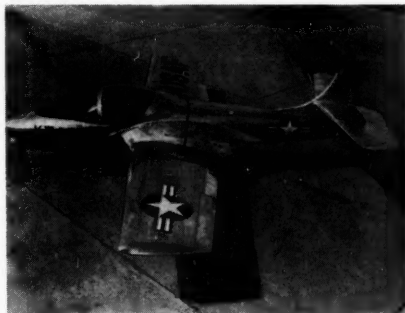
of the 24 "Mighty Mouse" rockets carried by the interceptor. The additional length was necessary to rebalance the plane due to the shift in the position of the armament. In addition, the new plane is equipped with a new automatic fire control system designed to enable the pilot to shoot down enemy planes even at night or in murky weather. The plane is in the "over 650 mile an hour" speed class and its combat radius is listed as approximately 500 miles.—News release.

Metals for Speed

The development of metals has been disclosed that would permit planes to fly 7,000 miles an hour, a speed at which heat would crumple present-day aluminum craft. While aluminum fails at 200 degrees, at 7,000 miles an hour, at an altitude of 40 miles, a plane's wings would heat up to 1,400 degrees. Stainless steel and cobalt base alloys have been developed which will withstand 1,400 degrees according to information released recently.—News release.

Transitional Trainer

A side-by-side jet trainer, the *XT-37*, is designed to introduce the pilot to jet aircraft at an earlier phase in the training cycle. This is expected to result in substantial reduction in time and training costs in acquainting prospective Air Force pilots with the complexities of high speed jet aircraft. The introduction of the plane at the intermediate phase of training is expected to materially increase the safety of pilot transition to high speed Air Force combat-type aircraft. The plane was designed to provide both slow and high speed as well as high altitude characteristics. Because of its role as a high performance jet aircraft, the *XT-37* is



Transitional trainer for Air Force pilots.

equipped with ejection-type seats and jettisonable canopy, electric trim tabs on all surfaces, and hydraulically actuated speed brakes. It is powered by two *J-69* turbojet engines. Many details of the plane are similar to those found in high speed Air Force combat-type aircraft.—News release.

Rocket Unit

Several batteries of the Army's new long-range artillery rocket, the "Honest John," will be deployed to Europe for service with NATO forces. This is the third of the Army's modern weapons to be sent to Europe.—News release.

New Uniform

About 1 September 1956, the Department of the Army expects to issue one of the new Army Green uniforms to each enlisted man along with one olive drab uniform. It is expected that the present olive drab uniform will be completely replaced by late 1960 under the present plans of the Army.—News release.

Hospital Cars

The Army Medical Service and the Transportation Corps' Research and Development Command are experimenting with three new types of self-sustaining hospital cars, designed for overseas service and able to operate on any broad gauge railroad in the world. A joint design of the two commands, the cars are equipped with a special axle and wheel seat which can be adjusted for operation on 56½-, 60-, 63-, or 66-inch gauge railroad tracks. With other specially designed equipment, the cars are adjustable to worldwide employment to meet mobilization requirements. The cars represent the basic types of hospital cars to be used in the future and include a personnel car for the medical staff, an ambulance car capable of providing for 30 patients, and a kitchen-dining-storage car with capacity for feeding 150 persons. The units are designed so that they can operate in temperatures ranging from 40 degrees below zero up to 120 degrees above. All cars are self-sustaining with light, water, forced ventilation, and heat so that in an emergency they can be dropped off on a siding for short layover periods. All the cars are equipped with air brakes, but they are designed so that vacuum brakes may be applied when in foreign areas. Interchange of these cars with cars operating on foreign broad gauges is made possible by the use of special couplers and diaphragms. All medical facilities considered desirable from previous experience have been incorporated in the new cars.—News release.

High Speed Camera

A 70-mm, high speed motion picture camera that takes pictures at a rate of from 80 to 400 per second is to be used by the Army to photograph missile launchers in action and to gather data on missile "miss" distance. A companion development is a huge 6,000-pound widefilm processing machine. This 22-foot by 8-foot machine can process film from 16-mm to 5½ inches wide. Not only does it produce sharper, clearer negatives, but it does so in a fraction of the time formerly required. The old machines required 69 hours of continuous work to process 4,600 feet of film, an average day's shooting, while the new machine can do the work in 4 hours.—News release.

Vehicle Contract

Approximately 35 million dollars worth of *M42* twin 40-mm self-propelled guns will be produced during the period June 1955 to May 1956 under the terms of a recent contract. The *M42* is a sister vehicle to the *M41* light tank which is also produced at the plant which received the contract for the *M42s*. The two vehicles use many of the same components and can be produced on the same assembly line.—News release.

Auxiliary Vessel

A new prototype ship, a General Stores Issue Ship, is being developed as part of a "family" of larger and faster replenishment-at-sea ships now being built. Its hull and machinery characteristics will be generally similar to those of the ammunition ships and refrigerated cargo ships now under construction. The new ship will have a full load displacement of approximately 15,000 tons, an over-all length of about 500 feet, and a beam of about 72 feet. It will be equipped with modern transfer-at-sea gear and will be driven by a single screw marine propulsion plant.—News release.

Height-Finder

Concentrating its radar energy in a narrow beam, like the rays of a searchlight, a new radar height-finder has been developed which can detect planes almost three times as far away as previous units of this type. The new set is used together with search radar to detect high-flying aircraft, providing information on distance, altitude, and direction of flight. Produced in both mobile and fixed versions, the new sets have been supplied for use in strengthening the radar defenses of the North American Continent, and for defense posts in countries receiving United States aid under the Mutual Defense Assistance Pact. The set is equipped with a radome in Arctic climates to protect the radar antenna from gales, snow, and ice. The radomes can withstand winds of 125 miles an hour.—News release.

Antitank Weapon

A new lightweight weapon, officially designated the Battalion Antitank 106-mm Recoilless Rifle System (Bat), weighs less than 500 pounds with its mounts and accessories. With double the penetrating power and more than double the effective range of individual weapons previously available to the infantryman, the new weapon greatly increases the soldier's effectiveness against armored vehicles. It is a mobile weapon mounted on a ¼-ton truck and may be displaced to fire from a ground position. Less than a minute is required to remove the weapon from the vehicle to permit ground firing or to return it to the vehicle.

By rigidly mounting a caliber .50 spotting rifle on the 106-mm weapon, the need for a heavy and fragile optical range-finder was eliminated. The new fire control technique permits the firing crew to move on a target quickly and fire the weapon in minimum time, greatly improving the first round hit probability.—News release.

Names on Hats

To boost morale the Navy soon may permit the sailors' flat hats to carry ship identification on the hat band. For security reasons the practice was abandoned in the spring of 1941. There are now about 740 ships in the Navy with names and this may be increased by about 150 if certain amphibious and auxiliary vessels, now designated by numbers, are given names.—News release.

Telephone Link

A telephone link, costing 35 million dollars, between Newfoundland and Scotland will provide 36 high-grade telephone circuits over two cables between the United Kingdom, Canada, and the United States. It is to be completed by late 1956. The cables will be 2,300 miles long and in some spots will be 3 miles deep. Of the coaxial type, the cables will have a single copper conductor centered in a copper tube about two-thirds of an inch in diameter. The deep sea sections will be about 1¼ inches in diameter. Each cable will have 52 repeaters built into it to amplify trans-Atlantic voices.—News release.

Science Teachers

Added to the list of critical occupations to be used by draft boards in making exemptions to military service have been science teachers in secondary schools. Previously, only college teachers with a master's degree or better have been on the list. Science teachers are now in the category with engineers, aeronautical scientists, chemists, physicists, and other classes of scientists.—News release.

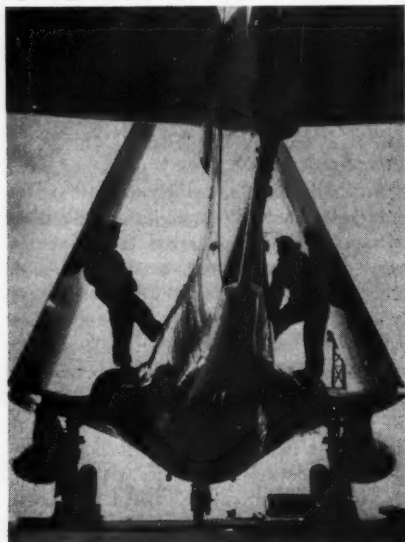
Research and Development

By providing over 1 billion dollars for new weapons development and research, Congress has aided the military in engaging in about half of the country's research and development effort now in progress.—News release.

GREAT BRITAIN

'Sea Hawk'

The British Navy's first folding-wing jet interceptor, the *Sea Hawk*, was designed primarily as a carrier-borne fighter.



Sea Hawk is carrier-borne jet interceptor.

It is said to combine a high top speed and rate of climb with long endurance and handling ease at any speed.—News release.

Jet-Propelled Car

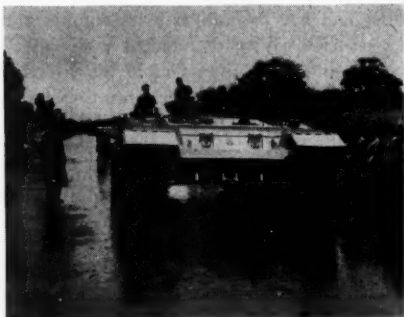
An effort to get production started on an economical jet-propelled car is being pushed by Great Britain's largest automobile manufacturer. Experiments have been conducted on a sedan powered by a 125-horsepower gas-turbine engine which used kerosene costing \$1.54 for a 108-mile test run. The car uses a heat exchanger, making use of exhaust gases. The jet car requires no gearbox and has no reciprocating parts. Several firms, both in Europe and America, are reported to be experimenting with the gas-turbine car.—News release.

Atom Aircraft

Research is progressing on efforts to develop a flying boat big enough to carry an atom powerplant. The Society of British Aircraft Constructors reported that the first atom-powered planes will probably have to be flying boats because of weight. Tremendously long runways would be required for land-based craft because of lead shields and other devices needed to protect the crew from radioactivity. The sea, according to the Society, offers the longest and cheapest runways. It was estimated that the weight of an atom-powered aircraft would be at least 250 tons and probably more.—News release.

Gas-Turbine Vehicle

An experimental model of a gas-turbine tracked vehicle was demonstrated recently at a showing of British military vehicles. The gas-turbine unit demonstrated is capable of developing 1,000 horsepower. The unit consists of a compressor turbine unit



Gas-turbine tracked vehicle is displayed.

with a speed of 17,500 revolutions a minute; a power turbine unit incorporating built-in reduction gearing; combustion chambers, two on either side of the engine center line; and a synchro-coupling unit enabling the work turbine to be mechanically connected to the compressor.—News release.

FRANCE

Rocket-Powered Plane

The first modern aircraft, the *SO 9,000 Trident*, to use rockets as its principal source of power with jets as auxiliary engines has taken off under its own power. The supersonic plane is characterized by straight, short and slender wings. It is expected that a speed of Mach 1.6 will be reached in level flight. At the tip of the wings are two small turbojet motors which ensure takeoff and climb up to sonic speeds and then the rockets mounted in the tail take charge of the rest. There are



Rocket-powered plane is undergoing tests.

three rockets of 2,750 pounds thrust arranged in battery and they may be fired either separately or simultaneously. This is an experimental model and is presently undergoing tests.—News release.

Fuel Line

Under the offshore purchase program, a jet-fuel pipeline is to be built across France to service United States airfields. The first leg of the line will be a 220-mile section of 12-inch pipe running from Donges, a newly constructed oil port of entry near Nantes, to Melu, south of Paris. From there the line will continue to Metz on the Saar frontier. The line will also be able to carry high octane gasoline for nonjet airplanes, and automotive gas for military vehicles and armored divisions.—News release.

Portable Helicopter

A portable helicopter, which the inventor claims can reach a height of 8,000 feet, was demonstrated recently. The flying windmill is worn on the shoulders of the operator and weighs about 60 pounds. It has a 6-horsepower engine and can do 30 miles an hour for 10 hours.—News release.

Bonded Construction

Over 2 years ago, an *SO 95* plane was given a horizontal tail unit of which all elements were bonded metal-to-metal by a new process. Today, after numerous flights in which the plane has been subjected to varied atmospheric conditions and to numerous tests for tail-unit vibration, the bonded structures have proved satisfactory.—News release.

Fighter Trainer

A light, 2-seat jet fighter trainer, the *Fouga CM 170R*, (*MILITARY REVIEW*, Jul 1954, p 70) ordered by the French Air Ministry was recently demonstrated to representatives of NATO countries. The plane has a maximum speed of 435 miles an hour at 19,680 feet and it has a maxi-



NATO representatives see fighter trainer.

mum rate of climb of 3,350 feet per minute. With auxiliary fuel tanks, it has a maximum range of 745 miles. The plane's armament consists of two machine guns with gyro sights, two rocket launchers, and two racks for 110-pound bombs.—News release.

CANADA

Nike Tests

Cold weather tests of *Nike*, the supersonic antiaircraft guided missile developed by the United States Army, will be conducted in Canada during January and February of this year. The tests are designed to determine the effects of extreme low temperatures on the complex component parts of the *Nike* weapons system, and have been termed Operation *Frost Jet*. Selected Canadian Army personnel, trained at the United States Army Guided Missiles Center, Fort Bliss, Texas, will man the weapons. A limited number of United States Army technicians will participate in the operation. Test firings will be done in the vicinity of Fort Churchill, Canada, which is used jointly by the United States and Canadian Armies as a proving ground to test new weapons and equipment under Arctic weather and environmental conditions.—News release.

WEST GERMANY

Road Link

A new suspension bridge across the Rhine near Cologne has been completed recently. Claimed to be the largest in Europe, the bridge will link the Hanover-Cologne-Dusseldorf-Frankfurt Autobahn with the International Highway to the Netherlands and Belgium. The 4-lane bridge is 1,858 feet long, and its middle section is about 1,240 feet.—News release.

NORWAY

National Guard

The first major mobilization exercise conducted by the Norwegian National Guard was reported to be a great success. After the reading of a message over the radio that the Guard must mobilize immediately, approximately 100,000 members assembled at predetermined points. In Oslo, about 80 percent of the Guardsmen were assembled in less than 2 hours.—News release.

BURMA

Reparations Pact

Burma is expected to get 250 million dollars in World War II reparations from Japan under the terms of an agreement to come up for ratification soon. The reparations, if ratified by both governments, would give Burma 250 million dollars in cash and 50 million dollars in Japanese joint investments to develop Burmese industries. The payments would be made over a 10-year period. Burma's negotiators also won the right to re-examine the reparations agreement in the light of agreements Japan reaches with the Philippines and Indonesia.—News release.

WESTERN EUROPEAN UNION

Name Defense Group

The Western European Union has been selected as the name of the new 7-nation European defense organization under which West Germany will be armed. Membership in the Brussels Pact, signed originally by France, Great Britain, Belgium, the Netherlands, and Luxembourg, will be increased soon by two new members when Italy and West Germany join, making it a 7-nation structure.—News release.

BRAZIL

Radiophone Net

A recently completed unique communications network—a radiotelephone system that interconnects 22 of its state capitals and principal cities for domestic as well as international service—has been announced by Brazil. The system which took 10 years to complete links approximately 600,000 telephones throughout the country and as a result many areas previously without long-distance service can now reach all parts of the world. According to the report, Brazil is now the only country with so many of its remote capitals joined telephonically to the federal capital and to each other solely by radio.—News release.

AUSTRALIA

Power Projects

The first power from the 60,000 kilowatt Guthega project in the Snowy Mountains hydroelectric scheme in southeastern Australia is expected to be available soon. Construction of 19 miles of aqueducts for the project has been resumed after an enforced winter halt. Work on the dam, tunnel, pipelines, and power station, however, continued throughout the winter. The erection of the turbines and generators has reached an advanced stage.

Full-scale operations on the 56 million dollar project of driving a tunnel of approximately 14 miles through the Southern Alps, from the Eucumbene River, has begun. The 6-year task will tap Snowy catchment on the western side of the mountain for power and irrigation schemes. The project also calls for the construction of a large dam on the upper Tumut River.—News release.

Communications

A revolutionary 2-way radio set developed for the Australian Army was demonstrated recently. The set consists of two small units weighing slightly more than 20 pounds. It is easily carried by one soldier and yet under favorable conditions can transmit or receive messages over hundreds of miles. The set operated efficiently while completely submerged in a stream, and after being dropped 3 feet on to concrete.—News release.

SOUTH AFRICA

Road Construction

Approximately 4,000 miles of the Union's planned 5,300 miles of national roads have been constructed, and 3,627 miles have been treated with a bituminized surface. The Transport Commission is also committed to an extensive special roads construction which may be increased from time to time as development is indicated.—News release.

INDIA

Steel Plant

The Government of India has accepted in principle a Soviet offer to build a steel plant with a capacity of 500,000 tons in India. The Soviet Union has offered to supply the machinery, equipment, and technical assistance in setting up the plant. In addition, the Soviet Government was said to be agreeable to sending an advance technical mission at its own expense to study local conditions and examine the feasibility of establishing such a huge industrial project. The Indian Government has accepted the offer of an on-the-spot survey.—News release.

Guard Border

Direct responsibility for guarding the 300-mile long border between Kashmir and Communist-controlled Tibet has been assumed by the Indian Government. Previously, the Kashmir Administration has maintained police posts in the Buddhist province of Ladakh, adjoining Tibet. This area is believed to be of great strategic importance because of its nearness to Sinkiang where there is reported to be a heavy concentration of Soviet and Chinese Communist forces. India has built an airfield at Leh, the capital of Ladakh, at an elevation of 11,554 feet.—News release.

PORTUGAL

Ship Trucks

Canadian Army trucks are being shipped to the Portuguese Army under terms of the North Atlantic Alliance's mutual aid program. The shipment will also include spare parts.—News release.

TURKEY

Bridge Link

A bridge across the Maritsa River, which will link Turkey and Greece, is expected to cost about 1½ million dollars. The 2,600-foot structure will have 35 spans.—News release.

JAPAN

Train Paratroopers

The first group of Japanese paratroopers to be trained since the end of World War II have recently completed their basic training under United States paratroopers. The small group of 30 men will become the nucleus of whatever airborne units the Japanese self-defense forces might develop.—News release.

Quit Base

The United States 1st Cavalry Division, which has been garrisoning Hokkaido, Japan's northernmost island, has withdrawn its headquarters to Honshu, the main island. The defense of Hokkaido has been turned over to Japanese troops.—News release.

Naval Construction

The first naval construction program since the end of World War II will soon be launched by Japan. Present plans call for Japanese shipyards to build two 1,600-ton destroyers to supplement two similar vessels lent by the United States. In addition, some smaller ships will be built to bring the total naval construction for 1955 up to 5,000 tons. Details are lacking for the plans of the first postwar Japanese-built warships. The shipyards have turned out several fast modern cutters for the maritime security force but these have been unarmored vessels.—News release.

Air Strength

A proposed increase in Japanese air strength calls for an air arm supported by 3,750 planes and 130,000 personnel by the end of Fiscal Year 1955. These requirements are based on a program of United States assistance in supplying both aircraft and aid to the Japanese aircraft industry. By Fiscal Year 1956, the total Japanese aircraft requirement is set at 2,116 combat aircraft, 950 helicopters, and 684 trainers.—*Air Training*.

USSR

Space Travel

Soviet scientists are sending rockets to a height of 240 miles according to a recent Moscow radio report. The report stated that a Soviet scientist has designed a rocket flying apparatus for interplanetary travel and has worked out the principles of its flight. The report stated that the altitude claimed is more than 80 miles beyond that achieved by the most powerful United States rocket which has been publicly disclosed—158 miles.—News release.

Shore-Powered Tug

A Soviet shipbuilding yard is constructing a tugboat that travels under the power of electromagnetic induction. It was reported that the tug has masts that look like overhead cable grids. They pick up current by induction from cables laid along the banks of the canal. A stretch of the Moscow-Volga Canal has been fitted with cables to enable the barge to sail along it.—News release.

Evacuate Naval Base

After more than 10 years of occupation, Soviet military forces will evacuate the Communist China naval base of Port Arthur in 1955 according to a recent announcement. The agreement appeared to represent a strengthening of the bonds between the two Communist Governments and a solidification of their common front in opposition to the Western policy in the Far East and the Pacific. The two countries agreed upon building a new Central Asian railroad, whose construction was started a year ago, to parallel the existing Trans-Siberian line. They also agreed on a 5-year exchange of scientific information and personnel, the agreement to be renewable for an additional 5 years unless denounced by one or the other. The countries plan to discuss the Korean question soon.—News release.

FOREIGN MILITARY DIGESTS

Infantry in Modern Battle

Digested by the **MILITARY REVIEW** from an article by General Sir Richard N. Gale in the "British Army Annual" July 1954. *

THE atom bomb, the influence of air power, mines, electronics and every other device, the so-called strategy of gaps and wide fronts, must at times make the infantryman wonder where his place in the modern battlefield really is. Has his place grown any more or less important? What indeed is his role? From this problem and its answer there will arise an important corollary—what principles should guide us in the organization of our infantry and in their training to fit them for their role?

A most difficult thing to discern with any degree of certainty is the form of the battlefield of the future. We have, in the past, not been too successful in this. No one foresaw the shape of things as they turned out in France in 1940. General Wavell's campaign in North Africa presented a shape of things not generally, if indeed anywhere, foreseen; unless perhaps by Wavell himself. In 1914 we were prepared for a war on the continent of Europe. We did not foresee a war of at-

trition, fought out over a period of years in mud and trenches, with barbed wire dominating tactics. In the more immediate past we did not foresee a war on a barren peninsula and against an oriental opponent with limited air power, such as has been fought in Korea.

Whatever rigid ideas, however well backed by reason, anyone might have had in the past, they have generally had to do much recasting of them in the light of events. Why had we then not foreseen these types of battles? Looking back on these battles there is nothing very mysterious about them.

There are, I think, two causes. In the first instance, we tend to form ideas too closely related to our last experience. Second, we are inclined in peace to form too rigid ideas, not only in relation to our own tactics, but on those of any potential enemy. We attribute to the enemy a tactical method which is based on what he or his allies did in the last war, and not on what he could and might do in the next. We must beware of these tendencies.

This by no means indicates that we

* Reproduced from the *British Army Annual* by kind permission of Her Majesty's Stationery Office. United Kingdom Crown Copyright reserved.

should wait on events and leave our plans and our methods "airy-fairy"; what it does mean is that, if we are to impose our will on our opponent, we must credit him with imagination and be so poised that, whatever pattern he endeavors to impose on the battlefield and wherever we are called upon to fight, we are not caught unawares and in consequence found dancing to his tune. The tendency of making up one's mind too rigidly as to what one's opponent is going to do is well exemplified in the sad fate of General Banks in the Battle of Winchester. General Banks made up his mind which fork of the valley General Thomas J. "Stonewall" Jackson would approach him by and he was wrong. There were many reasons for Banks' failure, but his rigid conception of his opponent's tactics was his undoing.

Nuclear Warfare

The real effects of nuclear warfare on land battle can only be surmised. In many details these are secret and for obvious reasons of security these secrets are not widely known. However, so much has been written in the public press by scientists and others on the general effects of nuclear weapons that some fairly reasonable deductions can be drawn.

This new weapon puts into the hands of the commander possessing it in sufficient quantities a lethal power never before available. The development and exercise of this lethal power must and will have the most far-reaching effects. While we cannot necessarily claim that they will be decisive, they will certainly be such that their use will be a major, if not the major, factor in the campaign as a whole. The impact of these weapons on the enemy may well be such that the entire previously conceived tempo of the land battle will undergo a radical change. Counteroffensives—conducted by forces which we would have previously considered inadequate for the task—may now be possible, or even

essential, if the military advantages resulting from the devastating effects of these weapons are to be reaped. The effects of the use of nuclear weapons by the enemy must have an influence on our land strategy and the conduct of the modern land battle. Concentration of troops such as occurred in the crossing of the Rhine in March 1945, for instance, would be fatal under present conditions.

So much for the wider aspects. What of the more intimate aspects? The principal characteristic of this weapon is the enormous concentration of lethal power. Perhaps, indeed, it is too great, for it is only necessary to kill a man once. Massed destruction of human beings has not won tactical victory in the past. The Germans used phosgene gas against us in World War I in an attempt to drive through to the English Channel. At the time we were completely surprised, our casualties were enormous, and we were totally unprepared. The massed employment of the killing power of artillery in the same war, and on a scale never before, or since, witnessed, did not produce more than local tactical gains. The weight of Bomber Command in the battle east of Caen in July 1944 did not produce of itself decisive results. In all these cases there were, of course, other important contributory causes. However, there will always be other contributory elements. The fact of the results remains.

The conclusion I reach is that the results of an atomic attack will not be final and conclusive—but they will affect in detail the conduct of battle. Concealment, deception, cover, and sensible dispersion will be necessary. Such measures will all go a long way to minimize the effects on ourselves. If used offensively by us, opportunities may be created which will require our armies to be sufficiently flexible and mobile in order to take advantage of them.

Air Superiority

There is much talk of air superiority. It is of the utmost importance and each side will fight for it. It must, however, as a factor, be viewed in sound and reasonable perspective. I do not believe that armies without air superiority are lost. Indeed, the entire teaching of the last war showed the reverse to be the case. In the early days in the Western Desert and in North Africa we certainly did not have it, but we fought for it, and it was not until we gained it that we could really turn to the offensive. The Germans lost it, but that did not prevent their fighting stubbornly on. It was the fact that they could never regain it that told their defeat.

The skillful, most economical, and worthwhile use of such air resources as one has will tell more toward success on the battlefield perhaps than any other single element.

I believe that severe air inferiority is one of the aspects of modern battle which might make for unnecessary panic. Therefore, its impact on the infantryman must be understood. He must be trained how to regard it as well as how to react to it. Foolish disregard of it will do much harm. An overread of its consequences or too much faith in the immediate effects of our air superiority on the enemy must be guarded against.

Deception and its corollary, concealment, are vitally important factors. Both must form planks of all plans and neither should be brought in as afterthoughts. It demands a high standard of training and a high standard of discipline. Disobedience and disregard of orders on this subject must quickly be visited on the men themselves. It is they who will be the first to suffer and it is their morale and will to fight that will feel the first shock.

Radar as a means of location; photography at night, through cloud and from great altitudes; infrared rays as a means of seeing without being seen; chemical and

biological warfare; control of weapons, machines, and missiles by radio; homing devices and the like; all these will influence the land battle just to the extent that either side predominates in their development, or has the art to use or counter them. There is danger in approaching tactical and strategical problems on the basis of big battalions, without relating this fully and scientifically to contemporary and future technical development. The deduction is that the land battle planned without a full and imaginative estimate of scientific factors will fail, because it will not stand up to the unexpected strain which the full use of scientific progress may give to its more imaginative adversary. Perhaps the most difficult problem is to relate these factors to the present generally accepted order of battle and equipment of divisions. Insofar as infantry is concerned, I shall examine later their basic tasks and the impact of these matters on the organization and equipment of battalions.

Power of Armor

Memory is sometimes short and theory is sometimes sweet. A heavy tank still in action dominates the battlefield on that spot where it stands. A larger number of them merely extend the size of the spot. If the theorist tells you this is not so, disbelieve him.

There are two important things about a tank; one is its armor and the other its gun. A long-range high velocity gun protected by sufficiently thick and suitably sloped armor and firing from a hull-down position where only its gun and the top of its turret can be seen, presents an insoluble problem to the antitank gunner whose weapon is outranged because it is not a high-velocity weapon. Sufficient numbers of these heavy tanks, whose devastating fire can be supplemented by normal artillery, can provide enough cover to permit the remainder of the tanks to press their

attack home. Tank strength is a factor in the conduct of modern battle which you cannot ignore. The correct handling of this potential force should dominate tactical thought. As a corollary, the study of the antidote to it is of considerable importance.

Antitank Defense

This brings me to the field of antitank defense. Here there has been great development.

The elements of antitank defense are as follows: ground, guns firing high-velocity armor-piercing rounds and generally carried in tanks, weapons firing lower-velocity special ammunition, infantry weapons very powerful in their effect but very limited in their range, mines—detectable and undetectable—and, looking into the future, guided missiles. Finally, given a reasonable air situation, there are the gun and rocket-firing aircraft. This is a very formidable range of defensive weapons. It has been claimed by some that so formidable is this array that in the field of military adventure the defense has mastered the attack once again. To those of this school it means the nadir of the tank.

I do not belong to this school, because I do not believe it is as easy as all that. What I do believe is that a balanced view is necessary. There are other elements which help the attacker. The first is local air superiority giving to the attacker the ability to saturate the defense with air attack by rockets, napalm bombs, machine guns, and high explosive air burst bombs. Second, there is the effectiveness of well handled artillery fire, and finally, there is the wit and genius of man, his drive, energy, and resourcefulness.

Today, the basis of our organization is the division, either infantry or armored. These divisions fight to defeat the enemy. Their role is to annihilate enemy armies. The method will depend on how the com-

mander intends to fight his battle. He may attack or he may defend and then counter-attack. In the former case, divisions will advance, come to grips, and destroy the enemy, either by direct frontal assault or by encirclement. In the latter case, they will draw the enemy on to their defensive positions, or into gaps between them, and check him by fire and then annihilate him by counterattack. Either in the assault or in the holding of ground, infantry is an essential ingredient. Fire power may kill a number of the enemy; but, as has been pointed out, of itself it will not be conclusive. The vital assault must be made by men; for, due to the limitations of any form of cross-country vehicle, armored or not, infantrymen only can cross all types of country and come to personal grips with the enemy. In fact, infantry, in spite of all these modern developments, still plays its vital part.

The entire alertness of a front, however wide, ultimately turns on the infantryman. By day or by night, in fog, in rain, or in snow, it is he who stands sentry and guards the front. The front crumbles when the infantry crumbles. The front holds when the infantry holds.

The holding of ground makes heavy demands on infantry. As we have seen, important as fire power is, it cannot replace infantry. Indeed, it is infantry that provides the cover from which fire power can be developed. Gaps may be covered by fire, but the fire producing units must be protected by infantry dispositions. Thus, to reduce the number of infantry battalions in a division merely reduces the cover which is essential to fire producing units, either in or temporarily added to the division.

In the case of armored divisions, whose role is essentially offensive, infantry divisions are necessary to fight with or for the tanks. Their role is to protect the tanks from the direct close-range assault of tank killing short-range weapons. They

must seize and hold ground essential for the cover of armored maneuver. They must attack these positions and objectives which are unsuitable for armor to attack but which are an essential part of the plan. They must hold ground, which armor cannot do.

Infantry fights by battalions. Battalions must not be too weak. The strength of infantry rests on the strength of the battalion. There must be sufficient men in the battalion to provide the sentries—double at night—to provide the patrols, and to ensure that the battalion as a whole does not become exhausted by having too great a proportion of its men, for too many nights, doing too much sentry and patrol work. Undermining the rifle strength of a battalion, on the grounds that it possesses automatic weapons—a popular thesis in some quarters—is dangerous and completely ignores the grim realities of fact. This same consideration bears on the value of and extent to which a battalion can afford frills. Signal communications are grand; but signallers sending messages to companies that are too weak to do their job is but cold comfort. Transportation is essential; but drivers sitting in transportation lines while a grim fight in the front is in progress is a waste of manpower. Carriers, wasps, and mortars are all excellent; but if they are there without sufficient men in the rifle companies, they will look silly. The tendency to add new weapons to the battalion to build up large efficient support and headquarter companies must be watched, lest it infringe too much on the backbone of the battalion—the rifle company—for whose assistance, actually, they exist.

Therefore, in considering organization and establishments, work back from the section. The section must have a minimum strength to ensure that it can carry out its function, even after casualties—that it can provide the sentries, hold its front, and cover by fire the gaps between the sections

of the platoon and between the platoons themselves. These latter tasks are properly the tasks of the light machine guns. The frontal defense of the section post is the task of the riflemen. There must be sufficient men and they must be capable of using and have confidence in their rifles. Next, work from the four rifle companies. These must, in the same way, be capable of carrying out their role, either in attack or in defense. It is the exhausted, depleted rifle companies that spell the tired battalion. The medium machine guns cover the gaps between the rifle companies and the larger gaps between the battalions. They can fire on fixed lines and must be able to fire accurately by day or by night, or in fog or smoke.

Having corrected your rifle companies, now give your battalion the top dressing of the rest of the support company and headquarters company. Do not make the whole too big, too unwieldy, and too complicated for one lieutenant colonel to command and train. The modern British infantry battalion may not be perfect, but it comes very near to fulfilling all these vital requirements, when it is up to strength.

Tactics and Training

I will now deal with some of the more pressing needs in tactics and consequently in the training of infantry.

There is an almost fatal lack of inquisitiveness in British infantry. Excellent as they are in the strict defense, dogged as they are determined, which is worth its weight in gold, and good as they are in the setpiece attack, they lack elan and imagination in certain circumstances. They tend to be too reliant on the support of other arms, not realizing that often this support will be meager. What is considered as "on" when full support is available, is not considered "on" when this is lacking. This, I think, is largely due to training. In tactics the method must vary with the resources, and when resources are scanty,

the method must exploit to the full all resources available. There is no place for rigid conventionalism.

I have been appalled at the ammunition expenditure rates which have been reported from Korea. Such rates will be quite impossible initially in a great war in Europe. Whatever our Field Force Conspectus rates are, they will bear no relation to the expenditure in Korea. We must face the fact that an atomic attack on ports and communications may well disorganize our supply and cause prolonged interruption. This will mean that we must never overexpend.

Skillful use of ground, surprise, use of cover, of darkness, mist or fog, and of smoke must be exploited. Full use must be made of the rifle and the machine gun. Some medium machine guns should be used to provide covering fire for the attack and some should be pushed forward with the attacking troops for consolidation. Tank gunfire must be used in the same way. I see no reason why a proportion of the tanks of the divisional regiment of the Royal Armored Corps should not play its part here. It requires balanced judgment, and the application of a little commonsense to ensure that by so using some of these tanks, the framework of defense is not unduly weakened. Used with discretion, from hull-down positions the fire power of the guns of these tanks is and should be made available for the counter-attack.

Simple tactical exercises without troops should be worked out to stimulate thought and develop technique for the offensive use of infantry when artillery fire or the supply of artillery ammunition is limited. Such training will do much to improve the tactics of infantry.

Indoor exercises are an anathema. Get out on the simplest type of ground that you can near your barracks. If it is wet, it does not matter—you will have to fight in the rain. Remember, you will nearly

always be fighting in or around villages. Street fighting is important; so also are those situations when the actual fighting is outside a village, which may be dominating the situation. In these forms of exercises done without troops, always exploit the encircling movement and avoid the head-on clash. Circumvent your enemy by maneuver and avoid, at all cost, giving him a line of dead soldiers immediately in front of his position or just outside the village which he holds.

Later, these same Command Post Exercises (CPXs) can be done with troops. Do this kind of thing on a battalion scale. Work it out so that it becomes instinctive, almost a drill: but it is battle technique I am after and not battle drill. Practice working troops with armor—sometimes armor shooting troops in, sometimes armor leading troops in—get troops and armor accustomed to working together. If I can single out one form of training which is essential, it is this. Study programs of work over a period to see how often this is *in fact* done. This kind of training should be done on the lowest level for it is on this level that it will have to work, and it is on this level that it can break down. Work these things out in CPXs just outside your barracks.

Conclusion

I will emphasize what I have touched on concerning defense and the use of the medium machine gun in this role. Never forget this can be fired on fixed lines in darkness or in daylight. Never forget its accuracy at ranges up to and even beyond 2,000 yards. Remember, it has a long beaten zone and the advantage of overlapping beaten zones. Cross fire from defiladed positions will cover open ground and gaps between localities. In flat ground, gaps of 2,000 yards can be effectively covered by such fire. This and minefields are all you require. Do not forget that high ground for observation is desirable. Vil-

lages and small built up areas are ideal positions to hold. They are difficult to liquidate and cross fire from guns defiladed *behind* them can be very effective and difficult for the attacker to locate. Moreover such villages will lie on roads which the enemy will want to use.

The importance of the Signal Corps cannot be exaggerated. However, the uneconomic use of the Signal Corps does not indicate a just sense of their importance. "Is your journey really necessary?" is a phrase which might well be used in the signal context. Is your message or is your telephone or radio conversation really necessary? Signal Corps units are overloaded and radio systems are overused. Too many people are like some women on the telephone—they are always on it and can never stop. The strictest discipline should be applied here to ensure that none but essential messages are sent and no conversations except those that are essential are indulged in. Monitoring during exercises and a good rough tongue after them are sadly needed.

Imagination is called for in the field of training, but imagination will not do if the foundations of good individual training are not truly and faithfully laid. The skill of the individual with his weapon or tool must never be sacrificed. In the British Army we have always prided ourselves on the height of our individual skill at arms, be it with a rifle, a radio set, a vehicle, or a gun. Never neglect this—it would be fatal. Try to get your standard higher by competition. Always be asking yourself, "Am I making this

training competitive enough?" "Am I making it interesting?" "Am I really getting them well trained as individuals?" Study training programs over a period to see how dull and uninteresting they have been.

Too much administrative work is unnecessary. It trains no one. It must be ruthlessly cut. Read the manuals. They are good. Train on the manuals. They are sound.

Do all tactics on the ground. Do not attempt tactics indoors. Use the map on the ground. Do not use the map indoors. Do platoon or unit exercises on the ground without troops and without too much administrative work. Practice makes perfect and so the more CPXs you do, the better you will become. No elaborate setting is necessary. No elaborate picture painting is required. Such simple questions as, "How would you attack that hill or that village, or defend the same, given a company or squadron with whatever support you like to make up?" is almost all that is required. For more advanced problems naturally more work will be necessary, however, that is work on the ground—never any administrative work. Be realistic, never be theoretical. Get realism into all you do.

Finally, remember these two points for they are true. It is impossible to have a good army without good infantry.

Good infantry must have that infectious optimism and that offensive eagerness that comes from physical well being. Therefore, the infantry soldier must be a very fit man. If he is not tough and hard, he cannot do his stuff.

The goal of our Army . . . is success in battle, victory in war. And victory is achieved not alone by weapons as ultimately by the skill, determination, and courage of the men who wield these weapons.

General Matthew B. Ridgway

Waging a Cold War

Digested by the MILITARY REVIEW from an article by Brigadier K. R. Brazier-Creagh in the "Journal of the Royal United Service Institution" (Great Britain) May 1954.

IT IS POSSIBLE that the type of war which is being fought in Malaya may be the pattern for cold war operations which will have to be fought in various parts of the world in the future until international communism is defeated for good. This war is only partially a shooting war and an equally great, or greater, battle is being fought for the hearts and minds of the people of the country, to which the services, and in particular the Army, are making a big contribution toward the defeat of communism in many ways.

Communism in Malaya is not an indigenous movement. It is an infection of a small section of the Chinese community with the Communist virus through the agency of the Communist Party in China. The Malayan Communist Party (MCP) was formed in 1930 and concentrated its resources on penetration and control in the labor field. It used genuine labor grievances for its own ends and fomented widespread strikes in 1936-37.

When Japan entered the war in 1941, the British authorities accepted the offer by the MCP of its services, and guerrilla forces were formed to operate in the rear of the Japanese armies. They had hardly become effective before the fall of Singapore, but later their guerrilla activities were fostered and organized by Force 136. Considerable quantities of arms were delivered to the MCP after the fall of Malaya and they acquired others from stocks abandoned when the Imperial forces were evacuated.

The war ended leaving the Communists possessed of an aura of respectability, a well-organized guerrilla force, and considerable stocks of arms and ammunition. The Malayan People's Anti-Japanese Army (MPAJA), as they were called,

emerged from the jungle, nominally accepted disbandment, and laid down as few of their arms as they could get away with, but they had already made plans for the future.

The MCP then proceeded to take the initial steps in the cold war. It was no local effort, but part of a wider South-east Asia plan aimed at spreading communism throughout the Philippines, Indochina, Siam, Burma, Indonesia, and Malaya, and driving the Western powers from their economically rich areas in these territories. In Malaya, a campaign of agitation was begun, followed later by strikes and disturbances. Then, in 1947, at an International Youth Conference in Calcutta, the various Communist parties in Southeast Asia were given orders to turn from agitation to campaigns of open violence. In 1948, therefore, the MCP opened its campaign at the same time as similar insurrections took place in Burma and Indochina. It was against such a contingency that the large, undisclosed stocks of arms and ammunition left over from the war had been preserved. The experienced guerrilla fighters took to the jungle once more, and on 18 June 1948, the Government of the Federation of Malaya declared a state of emergency. A month later the Communist Party was outlawed as an unlawful society.

The Enemy

The campaign of the MCP was planned in three phases. The first was a phase of pure guerrilla warfare designed to stretch and weaken the Government while the Party was engaged in recruiting and building up the strength of its forces, now termed the Malayan Races Liberation Army (MRLA). The second phase

was to be intensified attacks on communications and the occupation of small areas. These small areas were to be used as temporary bases for the launching of the third phase, which entailed the assumption of administrative control over the abandoned areas, the establishment of permanent bases, the conversion of the guerrillas into a Regular Army, and the final overthrow of the Government by armed force. In Malaya, we have succeeded in halting the program in the first phase and are now in the process of destroying the guerrilla army.

The MCP is a joint political-military organization. It is controlled and directed by the Central Politburo, the head of which is the Secretary General, Chan Peng. Below the Politburo is a series of regional bureaus, State, and District committees covering the country. The District committees, which control the branches, and the *Min Yuen* (People's Movement) are the main functional level of the organization.

The committee members in the MCP are all Communists of many years' standing and the qualifications for promotion to these ranks are strict and seldom varied. It takes a Communist many years of faithful service to the Party to gain promotion. The members will rarely promote to fill a vacancy caused by a casualty unless a suitably qualified candidate is available. They are having little success in recruiting men of intellect and character who will make leaders and this, coupled with their rigid insistence on qualification for rank, makes their command structure vulnerable. It is extremely difficult for them to replace leaders who become casualties and, therefore, any successes which we have in eliminating ranking members of the organization are of the greatest importance.

The armed forces of the MCP are nominally divided into the MRLA and armed units of the *Min Yuen*. The MRLA is a

full-time military organization composed almost entirely of Chinese. About 10 percent of Malays or Indians form the non-Chinese element. It used to follow a normal military organization, but the success of security force action has compelled the MRLA to break down from companies into a series of independent platoons. The *Min Yuen* is the organization by the MCP of the civil population to carry out ancillary duties on behalf of the MRLA. They collect intelligence, supplies, and recruits; act as couriers; and disseminate propaganda. They also collect funds, either voluntarily or by robbery and extortion. Their eventual object is to so dominate the population in their particular area that they carry out the instructions of the MCP.

The general picture is, therefore, of an organized and uniformed guerrilla force living in temporary camps in the jungle, from which it emerges to perpetrate acts of terrorism. It was initially entirely supplied by the local population through the un-uniformed *Min Yuen* organization. The supply of arms and ammunition is derived from stocks concealed after the war, replenished by captures from the security forces. The un-uniformed, clandestine *Min Yuen* organization, in addition to its supply duties, carries out the covert activities of the MCP among the population.

It is the necessity for contact with the population for supplies, recruiting, and propaganda, that makes the terrorists vulnerable to military action. As a result of security force successes, a new trend is now apparent; bases are appearing deep in the jungle supported by cultivated clearings spread over large areas. This trend indicates an attempt by the terrorists to provide themselves with more secure sources of food.

The general effect of these tactics, as always at the start of a cold war, was a loss of confidence in the ability of the

Government to maintain law and order and to protect the people. As a result, many of the people, either voluntarily, or under threat, supported the terrorists. Therefore, the first step which had to be taken was to restore law and order.

By the declaration of a state of emergency, extraordinary powers were assumed by the Government and the hand of the administration was strengthened. It is essential, however, to handle these powers with great care, as the restrictions imposed will be exploited by the opposition and may aggravate the grievances of the people against the governing power. As the situation improves, relaxation of restrictions can be allowed, thus confirming the good intentions of the Government.

In order to deal with the terrorists, the military forces were called out in aid of the civil power and, as long as the war remains cold, the military forces remain in support of the civil power. The way in which the shooting war is conducted is described later.

The next major problem which faced the Government was how to isolate the rural population from the terrorists, both to protect them and because it was only in this way that supplies could be cut off from the enemy and their covert activity could be stopped.

All over the rural areas in Malaya, the population lives in scattered villages and settlements, many on the jungle fringe and with poor communications with the larger centers. It was from these places, particularly where the Chinese population was predominant, that the terrorists drew their supplies. Unless the population could be concentrated to a greater extent, they could not be isolated from the terrorists. The resettlement policy was, therefore, initiated, under which thousands of the population were moved into new villages, which were surrounded by barbed wire. They were given police protection and encouraged to provide their

own protection by means of the Home Guard. At the same time, the resettled villagers received many of the benefits of good administration, such as piped water supply, electric lights, schools, and medical centers, which had never reached them in their scattered dwellings. Similar protection was given to the labor lines of estates and mines.

Problems in Human Relations

These, then, were what might be called the negative measures to deal with the emergency, although resettlement had positive aspects to it. Equally important and simultaneous positive measures were taken in what General Templer has described as "the battle for the hearts and minds of the people."

First, steps were taken to meet the people's aspirations. The great desire for self-determination which has swept across Asia did not leave Malaya untouched. The problem of leading the people toward the goal of self-government is being tackled with sympathy and understanding. The universal problems of labor relations and the development of trade unions have progressed further in Malaya than anywhere else in Southeast Asia. In these and many other ways, the Government, by wise counsel and intelligent action, is meeting the justifiable aspirations of an awakening people.

The next step was to mobilize all the powers of good in support of the Government. In Malaya, like every country in the east, a tremendous leeway remains to be made up in matters of education, housing, and health, which was widened by the war and the Japanese occupation. In fact, the general standard of living in Malaya compares favorably with that of other countries in Southeast Asia. Nevertheless, poor housing, unsanitary conditions, a starvation level of wages, and illiteracy still provide fertile soil for communism. All these have been and are

being attacked with the same energy as the terrorists in the jungle; the only limits to action being the availability of money and skilled manpower.

Finally, it was necessary to drive into the minds of the entire population the merits of the existing Government, its achievements, and its aims. The Japanese occupation left a legacy of lack of confidence in Government pronouncements and an antipathy toward the police. The ignorance of Government aims and achievements was great and the problems in overcoming it considerable, due to the high degree of illiteracy and to the fact that broadcasting does not reach down to the lowest levels of the population in all areas. Much of the value of the other positive steps being taken is lost, unless the population realizes the Government's share in bringing them about and how they fit in with the Government's ultimate aims. It was with the intention of solving this problem that control of all the agencies involved was centralized under the Director General of Information Services appointed by General Templer.

Fighting the War

Offensive action against the terrorists is based on the legal powers which enable the Government to impose a state of emergency and the emergency regulations granting special powers to the civil administration, the police, and the armed forces. It is a feature of this type of warfare that all operations are closely integrated affairs with all or many of the forces at the disposal of the Government—Police, Home Guard, Civil Administration, Navy, Army, and Air Force—taking part.

Every Chinese village or Malay *kampung* in Malaya, which could be subjected to terrorist activity, now has a Home Guard. Their task is the protection of their homes and families, backed up by armed force, from the demands of the terror-

ists. The Home Guard brings the people into the battle and does much to bring home to the population their responsibilities to the Government.

The Police in Malaya are now organized into three main elements, the Regular Police, the Special Constabulary, and the Police Field Force.

The Regular Police man the police stations and police posts throughout the country. Their task is the maintenance of law and order as the servants of the public. Much has been done to gain public confidence through the development of *Operation Service*, whereby the Regular Police, where possible, carry out their duties unarmed, devote their main attention to the normal functional police work, and do all in their power to develop a feeling of friendship and mutual confidence between themselves and the public.

The Special Constabulary is armed and can be raised whenever a state of emergency is declared; numbers being directly related to the particular problem. They are now organized into approximately 800 area security units. These units, each about 25 strong, are located in strict geographical areas of population, industry, and planting. Both by active patrolling up to the jungle fringes and by static guards, they give security to their areas. They can deny ground to the terrorists and prevent contact between them and the people, the food suppliers, and the money collectors.

The Police Field Force is an armed force, which perhaps can be described as a *gendarmerie*. They have, up to now, played a part equivalent to the Army and have filled the framework of security. They are now, however, being used to man a number of forts, which are established deep in the jungle to deny those areas to the enemy and to win over the aboriginal population which has been subjugated by the terrorists.

Good intelligence and information are

of outstanding importance in enabling the security forces to find and destroy the terrorists, particularly the leaders whose loss disrupts the organization and saps the ideological driving force behind the rebellion.

The initial effect of the terrorists' tactics was, as has been explained, to produce a loss of confidence in the ability of the Government to maintain law and order and to protect the people. Consequently, information as to terrorists' movements dried up. As the security forces were expanded, developed, and trained, confidence began to return and with it the flow of information swelled.

Much of the information necessary for the Government's conduct of the cold war, both political and military, must be obtained from police sources. The establishment of a Special Branch requires many years of careful and patient preparation. The cold war in Malaya, coming so soon after enemy occupation of the country, found an inadequate Special Branch which is only now beginning to play its full part.

The main source of tactical intelligence is the Special Branch. To allow the Special Branch to concentrate on its proper role of penetration of the enemy, a system of military intelligence officers (MIOs), who work under State or Circle Special Branches, has been set up. These MIOs are responsible, within the Special Branch, for collating and assessing all tactical information which can be passed on for use by the military and the operational police. These MIOs are more highly trained than normal battalion or brigade intelligence officers and, because of their close connection with Special Branch, enjoy the confidence both of the Police and the services; they are thus of particular assistance in promoting co-operation between the two. This co-operation is vital if the best use is to be made of intelligence.

Psychological warfare has an important part to play both against terrorists whose morale is cracked or cracking, and in informing and influencing the public about Government policy and intentions.

The two main mediums of approach used in Malaya are the eye (leaflets and posters) and the ear (broadcasting and air loudspeakers). The problem in Malaya is very much complicated by the variety of written and spoken languages and dialects. Leaflets, in particular the tactical leaflet, which can be hurriedly printed as a result of a surrender or kill, are of tremendous value. They are persistent even in the tropical rain and can be distributed widely by air or ground forces. The innovation of the voice aircraft, with its advantages of speed, personality, and ability to cover large areas, has also proved of great value.

Other services which can help to give the lie to communism in the cold war are education and health. Much can be done to influence the people by adult education, the conducting of civics and rehabilitation courses, and by improving the health and sanitation in rural areas.

Public utilities, railways, telephones, roads, light, and water must be maintained to retain confidence in the administration and to give the essential mobility to the security forces. The Government should be prepared to assist the St. John and Red Cross organizations, which, in Malaya, have done so much to gain the confidence of the people in the resettlement plan. The Boy Scouts and Girl Guides movements, which can be such an important influence in the moral education of young people, should also be encouraged.

Finally, to aid the civil power we have the armed forces—the infantry battalions, cavalry regiments, Special Air Service Regiment, and artillery, supported by an air force of *Lincoln* bombers, ground attack and transport aircraft, and helicopters. Also, in coastal areas, elements of

the Navy assist in bombardment, river transport, and patrol to prevent supplies reaching the terrorists from external sources.

The chain of command established in Malaya to deal with this cold war is in some respects peculiar to the country and the nature of the constitution, but no doubt the system could be adapted to fit other countries and circumstances. Against the emergency chain of command, the normal instruments of Government must still continue, such as the Executive Council and the Legislative Council.

There are not sufficient battalions to allow an allotment of one to each district and a company commander may well be a member of the District War Executive Councils (DWECS). So too, unfortunately, the civil districts and police circles do not always coincide and the officer commanding a police district may sometimes be a member of the DWECS. Nevertheless, whatever variations to the basic organization may be necessary, the civil government, police, and Army are always present as the triumvirate who run the emergency. The DWECS is the spearhead of the cold war.

There is a combined Army-Air Headquarters Malaya with a naval liaison officer. This headquarters runs the day-to-day administration of the Army and carries out the military aspects of the Director of Operations' policy.

It will be noted that at all levels the Army officer is working with police and civil authorities and that he is supported by naval and air forces. Officers must know the organization and functions of the civil government and must approach all problems with patience. An officer who sees everything from the purely military angle will be gravely handicapped. The military problem will often conflict with a political or civil one and unless the officer understands the entire pattern, he will feel frustrated and may well up-

set the smooth running of operations in his area. The Army officer is, by virtue of his professional training, better qualified to plan and execute cold war operations than his fellow committee members. He must, therefore, be prepared to take the lead in his committee, produce ideas, and carry the burden of responsibility for operations, but he must do so with such tact and understanding that his ideas and decisions appear to stem from the committee rather than from himself.

The Shooting War

Generally speaking, the Army is deployed in what is termed a framework with troops based in or near populated areas with the object of:

1. Supporting the police in those areas and giving confidence to the people.
2. Cutting the connection between the Communists and the public on whom they rely for subscriptions, food, and recruits, and whom they wish to seduce by propaganda to their cause.

This framework strategy is not one of purely static defense. From their bases in the framework, troops are continuously carrying out offensive operations in the form of patrols and ambushes to watch for and destroy the terrorists. Where possible, local reserves are kept to take advantage of any "hot" information which may be received, and a federal reserve is held centrally for large-scale operations in any area.

The Communist terrorists move in small parties, have no fixed lines of communication and, in the absence of a completely loyal population and until intelligence is fully developed, can avoid security force probes and disappear into the ideal guerrilla country provided by the terrain, or merge with the population. Troops on foot are the most usual method of search. Patrols move on information, search for and follow tracks, or make chance visual contacts. Air reconnais-

sance is proving invaluable in locating cultivation areas and sometimes camps, but information from the population or from surrendered enemy personnel is by far the most certain method of locating terrorists.

Fighting the Enemy

Once located, the most successful method of killing the terrorist is the ambush. His high standards of jungle craft make it difficult to close with him on the move, but, once his intentions are known, or his routes found, the silent ambush has proved very successful.

So far, we have not solved the problem of preventing the enemy from breaking off an action and disappearing, and in Malaya you can disappear in a very few yards. We have used parachutists, artillery, and air to cut off a line of withdrawal, but not entirely with success. We have also used small parties to saturate an area and have been able, through radio messages, to move them to cut off positions after another party has made contact. The only method which has really shown results, however, is the dogged pursuit by the infantrymen over dreadful country, sometimes for many days on end.

It is not always realized that the infantryman on patrol in Malaya plods through the jungle, on an average, for hundreds of hours without seeing his enemy. When at last contact is made, it is more often than not of a fleeting nature, with only the chance of a snap shot from an awkward position before the enemy disappears once more into the "green wall" and the patrol pursues its way. It is, therefore, hardly surprising that before a kill is recorded the time the average soldier has to patrol is measured in thousands of hours. Even the ambush on information, the most fruitful source of kills, requires infinite patience. The average time required to produce a kill is well over 100 hours; hours of sitting in the

heat, or the dark, drenched with rain, or consumed by insects, without smoking or moving and at instant readiness.

The most successful operations have been those launched against the terrorists' lines of food supply.

Food control operations are combined civil, police, and military operations, which require a high degree of co-operation both in planning and execution. The first stage is normally the setting up of a food control area, into and out of which food cannot be moved without escort. Then, a reduced rice ration is instituted and all surplus rice is collected by house-to-house search and purchase. Finally, all tinned foods are punctured at the time of purchase in the shops.

Once the stage is set, police move into villages and food-supplying areas, where they carry out identity checks and searches of the persons moving into and out of the area. Spot checks are set up on roads to search all vehicles. Military operations in the local haunts of the terrorists are intensified with the object of discovering and clearing dumped food and keeping the enemy on the move to prevent his going under ground and living on reduced rations.

All that is required now is patience to sit back and wait for results. Perhaps as much as 6 weeks or 2 months will elapse before results are seen. Then, as his dumped and hidden resources run out, the terrorist must make contact with the population to obtain supplies. Then, the security forces are waiting for him. The weaker brethren become a target for psychological warfare, and surrenders and kills begin. From this moment on, results snowball; each surrender is a source of information and the public begins to talk.

In this type of warfare, the initiative tends to remain with the enemy. He aims to avoid contact with the security forces.

He can select his time and place of attack and he has a wide choice of targets.

The security forces, on the other hand, have only one target—the elusive terrorist needle in the jungle haystack.

The initiative is being wrested from the terrorists by relentless hunting, by improved security, and by increased mobility. In the last, the advent of the helicopter has considerably strengthened our hand.

Battle for Hearts and Minds

In addition to fighting the shooting war, the Army has its part to play in the other "battle," which is such a potent factor in the cold war and in which the Army in Malaya has already done much. As General Templer has said, the main battle in the cold war is winning the hearts and minds of the people.

The Army can help by example—the spirit of a good Army can be exploited to the fullest and displayed to the people. Everything a unit does is known to the local inhabitants and, if they are confident that the Army, as represented by this local unit, is really "on the ball," they will be more co-operative, more willing to supply information, and more sure to harden themselves against the Communist way of life.

On the material side, the Army can do a great deal. A good example is medical aid; nearly all the Army doctors in Malaya give their spare time to running village surgeries or to looking after children's wards in hospitals. Successful surgery has won many hearts for all time and a considerable number of civilians have been lifted out of the jungle to a hospital by helicopter. Many other examples could be given.

It must not be thought that in Malaya the State cannot and does not try to do all these things, but it cannot do everything at once, although the awakening

people will demand everything at once and failure to do or to provide will be used as fuel for the Communist fire and fanned by their propaganda. The Army, with its resources, can help in solving some of the immediate problems and show that it is wholeheartedly behind the Government in its efforts to provide the improvements so much desired by the people. The soldier is not fighting communism only when he has a rifle in his hands.

There are two particular objectives which we intend to pursue with vigor in the coming months because, if we can achieve them, the end of the emergency will be in sight. One is to bend our efforts to eliminating as many of the higher leaders as possible. It is not an easy task, because they are the most elusive and the best guarded of the terrorists, but we have had successes in this respect over the past 8 months and, if we can maintain and, if possible, improve on this success, they will be losing leaders faster than they can replace them and the command structure will crumble. Once this happens, the rank and file will lose heart.

The second objective is to increase the surrender rate. It has not been possible to isolate any particular factor, or factors, which lead a terrorist to surrender. It would appear that it is normally the cumulative results of pressures, mental and physical, over a period caused by fear, privation, and a sense of hopelessness. These in their turn are produced by relentless hunting and harassing, food control measures, and psychological attack. All these are being stepped up and the techniques improved in order to increase the pressure on the terrorist.

The High Commissioner has recently declared part of the coastal area of Malacca to be a "white" area. This means that, as the terrorists have been eliminated and the population is co-operating with the Government, a number of emergency

controls which restrict the liberty of the individual are lifted from the area. The result is a great relaxation in life for the inhabitants. It was an experiment and, like all worth-while experiments, it was attended with risk. So far, the reaction appears to be most promising and the urge to get their own areas declared "white" has been communicated to other districts. It is the High Commissioner's policy to extend the "white" area as other areas become ready, and it is in this extension that the pattern of the closing phase of the war will emerge. Gradually more and more areas will be declared "white," until the terrorist is driven into the deepest jungle to starve or capitulate.

Because of the fall in the prices of tin and rubber, Malaya is going through a period of economic recession. Revenue has consequently contracted and there is less money to meet the many calls. The emergency is a heavy financial burden on Malaya and, while it is obviously difficult to reduce expenditure on Police and armed forces in the present circumstances, it is equally important not to reduce expenditure on health, housing, and education—the armory in the other battle.

Against the inescapable fact of reduced revenue, the Government is constantly faced with the hideous problem of balancing one side against the other. It is the High Commissioner's constant aim, as the situation improves, to reduce the expenditure on the negative measures, in order to transfer the savings to the positive side and so strengthen the forces in the battle for hearts and minds. Upon the speed with which this can be done will depend the length of the emergency.

Summary

Success in the cold war must depend upon a combination of political, psychological, and military measures. The military effort is inextricably entangled with the political and psychological, but it would appear that the principles of military antiguerrilla action can be stated as follows:

1. The guerrillas must be isolated from the civil population and every effort must be made to win public confidence and sympathy.

2. An efficient intelligence service must be established to ensure that military information arrives in the right hands in time.

3. An efficient chain of command must be organized, based on police and civil boundaries, with military members giving the fullest co-operation and leadership.

4. Mobility and flexibility must be retained with a reserve always available.

5. A high standard of security is necessary to frustrate the guerrilla intelligence network.

6. Offensive operations must be designed to cut guerrilla communications and lines of supply and to harass him with a view to weakening his offensive potential; to destroy the leaders and command organization, thus removing the ideological driving force behind the revolution; and to destroy the rank and file or secure their surrender.

A cold war cannot be won by shooting people or locking them up. Military action must restore law and order, but hand in hand with the military battle must proceed the search for, and the application of, an antidote to the cause.

Cold wars demand cold nerves. It is important, of course, not to underestimate one's enemy.

Deputy Under Secretary of State Robert D. Murphy

The Soviet Concept of National Defense

Translated and digested by the MILITARY REVIEW from an article by L. Léontin in "Revue de Défense Nationale" (France) August-September 1954.

THE Soviet idea of national defense underwent a veritable revolution in the Soviet Union between the years 1917 and 1954. The Revolution of October 1917 was impregnated with the spirit of the negation of national defense and of defeatism.

Since the end of the Civil War, the idea of the defense of the Mother Country has evolved from a class concept to one of a national form, although maintaining its revolutionary character attenuated with the years.

Civil war no longer constitutes anything more than a military touchstone of the Soviet Government. The history of the Red Army, which in 1948 became the Soviet Army, is closely bound with the history of Russia, whose ashes have been abandoned—only the flame retained, in the words of Jaures. World War II, dubbed the Great Patriotic War, constitutes the culminating point of the defense of the Soviet socialist Motherland, and the glorification of the Army. The Soviet generals emphasize its popular character, its integration with the nation, pointing out the contrast between it and the armies of the so-called capitalistic countries, which do not possess its national character.

Evolution of Doctrine

The Red Army made its debut in October 1917 in the midst of an absence of discipline, of decomposition, and of a peace without annexation or contribution—which was not the case with the peace of Brest-Litovsk. It corrected its situation under Trotsky with the aid of certain officers of the old Army and a few elements of worth discovered among the revolutionary cadres.

The coexistence of two different cadres—a command cadre and a political cadre

with multiple functions—weighed heavily on the Army for 24 years and did not disappear until 1941. In 1919, however, Lenin, who had studied Clausewitz, saw the importance of a strong army for a workers' and peasants' state. "May every institution of Soviet Russia never cease to accord to the Army, first place," he wrote. "History teaches that those governments which do not attach great importance to matters of a military nature lead their nation to destruction. The Army must be regularly and firmly disciplined. Either we form such an army, or else we perish."

Such was the beginning of the evolution of a concept of the Army, which led from the disorganized mass of the workers' militias, which were soon abandoned, to a Workers' and Peasants' Army. For the first time in the history of Russia, this Army proceeded to the incorporation of the entire population, while in 1914, military service was not extended either to Turkestan or a large part of Russian Asia.

1922 to 1925

After the end of the war against Poland, Frunze, the Commissioner of Defense, a Communist who had distinguished himself against Wrangel during the Civil War in Turkestan and the Crimea, formulated certain ideas which are still in force.

He fought the idea that war is only a clash of masses of infantry and cavalry: "The war of the future," he wrote, "will be, in the main, if not entirely, a war of machines. . . . The technique of Kolchak, of Denikin, and Wrangel, is only a weak reflection of what our enemies will confront us with in the future."

He weighs the psychological and the ma-

terial factors: "It must not be forgotten," wrote Frunze, reflecting on the technical strength of the adversary, "that technique, by itself, is inert, and only man endowed with will power, energy, and intelligence, is able to orientate in this or that direction."

Frunze considered that it was not enough for the Soviet Army to possess "discipline, courage, and military training," but that it must possess modern armament in order that it may occupy a position above that of the army of a bourgeois state. He contends against the "fetishism of technique" and insists on the individual education of the soldier in order that he may not be influenced by the technical superiority of his adversary.

Lieutenant Colonel Krustov wrote in the book, *Military Education According to Frunze*, "It is no secret that during the first period of the Patriotic War of the Soviet Union, numerous combatants and certain commanders felt lost in the face of the technique of the adversary, particularly in the face of the tanks. It required a certain length of time to overcome the 'fear of tanks' (*tankoboiyazn*) in the minds of the less stable men. Having learned the technique of the enemy and having learned how to combat it, Soviet troops defeated him."

In the mind of Frunze, only "a conscious discipline can be an iron discipline." It must be based on "the psychological and technical authority of the command." In this cadre, Frunze also included the political cadres of that day. "Any breach of discipline on the part of a commander or political collaborator must be met with stern measures and in no case must remain unpunished." Frunze cites the case of Chapayev, a general during the Civil War, who shot down a soldier who had refused to obey his command to permit an ammunition vehicle to pass.

To Frunze, the qualities of an officer are, "The gift of being able to orientate

himself easily in a difficult situation, the spirit of initiative and of decision, firmness, the sense of responsibility, vigilance, good judgment, a knowledge of Marxism-Leninism, and a high level of instruction in military science, economics, and political science." This concept explains the large amount of time spent in study by the Soviet officers. As a matter of fact, out of 35 years of service, a Soviet officer actually spends 10 or 15 years in various courses of study.

1926 to 1940

In 1927, another attempt was made to fix the doctrine of the Red Army, by General Svetchine, instructor in tactics in the War Academy and co-ordinator of the tactical courses in the superior military schools. He was a former colonel in the Russian Army, with staff certificate, and possessed an encyclopedic but opportunistic mentality, who published a book on the doctrine of the Soviet Army. Its author attached great importance to the revolutionary spirit and declared that the trumpets of Jericho of the October Revolution would suffice for breaking down the walls of capitalism.

This theory—based exclusively on psychological factors and neglecting, therefore, factors of a material nature—was shattered by General Triandofilov, former student at the University of Moscow, officer candidate of the Russian Army in 1917, who possessed a brilliant mind and was a prolific military writer.

Their controversy over the invincibility of the spirit of a revolutionary army recalls the controversy of Marshal Bugeaut, deputy in 1832, with Odilon Barot, who declared that "enthusiasm and exaltation are a force," alluding, thereby, to the volunteers of 1793.

"The first campaigns of the Revolution were not successful in their minor encounters: The participants, although sometimes victorious, were more often

beaten. . . . There are a great many persons in France who are persuaded that singing the Marseillaise suffices for overcoming the armies of Europe. You must learn, gentlemen, that as long as our armies were not well organized, as long as we had no system of tactics, we had no marked successes, and we had reverses. I heartily approve of the song, the Marseillaise, but it is my belief that of itself, it does not bring victory," said Bugeaut. A short time after this criticism by Triandofilov, Svetchine, relieved of his charge, disappeared. His opponent met his death in an aviation accident.

The doctrine of the Soviet Army, revised by the successor of Svetchine, was worked over in 1933, after the advent of Hitler, when the death-knell of the German-Soviet military collaboration had sounded.

On the eve of World War II, the doctrine underwent a new adaptation following the purge of 1937, during the course of which Marshals Tukhachevski, Blücher, and Yegorov together with Generals Uborevich, Yakir, and several others, had been executed.

The Soviet military writers made incursions into the history of Russia. They studied her military history from the point of view of Marxism-Leninism, and drew conclusions amalgamating the Red Army and the modern Russian Army created by Peter I.

At that period, the Army comprised large national units—Ukrainian army corps, White Russian divisions, Tartars and Caucasians—constituted as the counterpart of the extension of the military service, but gradually absorbed into the melting pot of a national army.

1941 to 1953

A new revision occurred after the Finnish campaign in 1940 under the direction of General Timoshenko. During the course of the war, between 1941 and 1944, the

tactical and strategic doctrines of the Soviet Army were modified in accordance with the experiences of the battles.

It was, however, from 1946 on that we note a new concept of Soviet strategy and tactics appearing. Borne on the wings of victory, it was imposed on the armies of the satellite countries and proclaimed as superior to the doctrines of the armies which represented the capitalistic world.

The war conducted by the Soviet Army is a total war. "Modern war, like the teaching of Lenin and Stalin," writes Marshal Sokolovski, Chief of the General Staff, "is a general test of all the material and spiritual forces of each nation. Only those states which are stronger than their adversaries in the domain of the development and organization of their economy, and the domain of experience and of the military control of their troops, and the domain of the resistance and unity of their people during the entire duration of the war, endure this test."

Marshal Sokolovski is, in reality, only a pupil of Stalin, who defined the factors of war, placing them in three categories in his book, *Concerning the Great Patriotic War*:

1. Temporary factors, such as surprise.
2. Permanent factors, such as solidity of the rear areas, army morale, number and quality of the divisions, armament, organizational capacity of the command, and training of the soldiers.
3. Psychological factors, such as ideology, and social and educational level of the soldiers.

"All that was necessary," wrote Stalin in the order of the day of 23 February 1943, "was that the factor of surprise should disappear from the arsenal of the Germans for the Fascist German Army to find itself faced with a catastrophe."

Modern war erases all boundaries between the front and the rear. "It has transformed our country into a united and multilateral rear zone serving the front."

Marshal Voroshilov states that the notion of the rear comprises the ensemble of the life of the state: "Its social system, its political trends, its economy, its apparatus of production, the organization of its workers, its ideology, its science, its art, the morale of its people."

The Soviet military doctrine attaches great importance to the zone of the rear. "... whose instability or hostility, without fail, transforms the best army, endowed with cohesion, into an unstable and flaccid mass," according to Stalin. This being the case, it is not strange that the large units of the Soviet Army possess two chiefs of staff, one of whom is charged with the rear.

The Soviet Army has adopted uniforms which recall those of the Imperial Army; it has acquired a taste for plumes, for decorations, and for gold braid. The exaltation of national sentiments coupled with communistic mysticism, has produced an imposing and, at first glance, coherent ensemble. The Army no longer bears the name of Workers' and Peasants' Red Army, but that of Soviet Army.

In spite of this appearance, however, it insists on remaining the new type army, defender of the world's first socialistic country. A member of the Convention said in 1793: "Europe must either be Jacobian or Cossack." To the Soviet military, the world is divided into two camps, an imperialistic camp with the United States at its head and a camp whose objective is peace with the Soviet Union as its leader. Placed thus, as a vigilant sentinel, the Soviet Army must continually perfect itself in order to be ready for a riposte.

Marshal Sokolovski emphasizes the thought that the "raising of the level of military and political preparation, the consolidation of the unity of command, of discipline and of spirit of organization, increase political vigilance."

The orders of the day to the Armed

Forces on the occasion of the anniversary of the October Revolution and of the creation of the Army, call attention to necessity of study: "In contemplating tactics without the light of history, one sees only darkness," said Suvarov more than 150 years ago.

Superiority in Military Science

To Lenin, General Clausewitz (1780-1831) was "one of the most profound writers in the matter of military questions." To Frederick Engels, he was "a star of the first magnitude." Although an opinion formulated by Lenin cannot be placed in doubt, Clausewitz has become for the Soviet General Staff, which counts among its members men of scholastic degrees and doctors of military science, a vexatious theoretician. Granting that some of his principles may still be valid, he represents, in their eyes, an outmoded world and a dead society. If the name of Clausewitz is still pronounced, it is because he served in the Russian Army in 1812-13, as plenipotentiary of the High Russian Command. He obtained from General Yorkvon Wartenburg the signature of the Tauroggen Agreement which made Prussia an ally of Russia.

"The Great Patriotic War demonstrated the superiority of Soviet military thought over the Western bourgeois theories, particularly in the domain of the armored and motorized units," wrote Vershinin, Marshal of the Armored Forces, in the *Literary Gazette* of 14 September 1951.

In the eyes of the Soviet military writers, victory in World War II was due, exclusively, to the Soviet Armed Forces. Thus, in an article under the title of, "Anniversary of the Great Victory," Major General Talenski emphasizes the thought that the Soviet Army "... has no equal among the armies of the capitalistic countries." "Soviet military science," he writes, "is a powerful weapon of our victory. How poor the ideas of Clausewitz,

of Ludendorf, of Douhet, and of Fuller appear in comparison with Soviet military science based on the truly scientific method of Marxism-Leninism. It embodies the totality of the psychological and political factors of war."

The military science of Stalin, according to Talenski, has illuminated all the phenomena of war. The Stalinian theory concerning the permanent factors of war—those deciding its outcome—is particularly justified by events.

Army General Chuikov, whose army played a decisive role in the Battle of Stalingrad, also speaks of the exclusive role of the Soviet Army in the victory. "When the Soviet Army had carried the fighting into enemy territory," he wrote in *Pravda*, "it became clear to the entire world, that when led by the great Stalin, it was capable of destroying the German Army and of liberating the peoples of Europe from the yoke of Fascist barbarism. It was only then that the Anglo-American High Command finally decided to land their troops on the French coast. History has shown that by delaying the opening of a second front, in violation of allied agreements, the Anglo-American High Command counted on thus exhausting the forces of the Soviet Union, on draining its blood, which would then make it dependent on the Anglo-British Imperialists."

Marshal Voroshilov, in his book, *Stalin, and the Armed Forces of the USSR*, writes that in 1940, "England, badly mutilated, ceased to play any military role whatever. She had sobered down and no longer worried the furious Nazi Führer and his insolent band." In 1939 the Soviet Union was a signatory of a nonaggression treaty with Germany. The existence of this diplomatic document did not prevent Voroshilov from affirming that "the only real obstacle to German fascism, which aims at the enslavement of the whole of

Europe and the domination of the world, was the Soviet Union."

Marshal Bulganin does not have a high opinion, either, of the military doctrines of the Western nations. "The great error of the German military leaders and of the bourgeois military leaders particularly," he writes in his book, *Thirty Years of the Soviet Armed Forces*, "consists in the exaggerated importance they attach to military plans. They examine them without regard for economic or psychological possibilities, confining themselves to the calculation of the military potential of a country, although economic potential and morale must be taken into account."

"The bourgeois military thought," writes Major General F. Issayev in *The New Times*, "accords no recognition to military science but reduces everything to the basis of military art. By nature, it would be incapable of creating a military science. War is a social phenomenon. It was only after the discovery by Marx and Engels, of the laws of social evolution, that it became possible to determine the legitimacy of a war. It was Stalin, brilliant scientist, strategist, and generalissimo of the Russian people and of their Armed Forces, who created the military science of the socialistic state."

In an article which appeared in *Pravda*, Marshal Vasilevski brings out that Soviet military science, the work of Stalin "is an entirely new military science. In addition to military questions, properly speaking, it includes the economic and psychological possibilities, not only of our own country, but also those of an eventual adversary." Vasilevski points out, "The contrast between this science, impregnated with Marxism-Leninism, and the 'fetishism' of military plans and methods of conduct of war which do not take into account economic and psychological possibilities. The bourgeois military theoreticians overestimate, in this way, their

own possibilities and underestimate the strength of their adversary."

The theme of the superiority of the Soviet Armed Forces is found again in all the orders of the day and constitutes an intangible dogma. Marshal Bulganin, at the Nineteenth Congress of the Communist Party in October 1952, delivered a discourse on the Soviet Army, "Nurtured," he declared, "in the spirit of internationalism." He stated that the war had shown that the Soviet Union possessed "an Army of the first order, of a new type, a true Army of the people and of fraternity between the various peoples of our country." He presented no data concerning the scope or the character of this internationalism.

Organization

Pravda, on 23 February 1953, published an article on the organization of the association for military preparation, the Voluntary Pan-Soviet Association for Collaboration with the Army, Air Force, and Navy (DOSAAF) under the title, "We Must Multiply the Ranks of the Patriotic Association of National Defense."

"The patriotic desire to consolidate the active defense of the Soviet Mother Country against aggression from her enemies," is reflected in the vastness of the DOSAAF.

The DOSAAF trains its members "in the spirit of Soviet patriotism, of attachment to the Soviet Motherland and its defense." This Association succeeded the Society for the Furthering of Defense Aviation and Chemical Warfare (OSO-AVIAKHIM) which existed before 1939. Numerous members, who had received military training, joined the Army in 1941 or fought with partisan groups.

After the war, the DOSAAF, which had several million members, organized military and tactical courses in factories, *kolkhozy* (collective farms), and *sovkhozy* (state farms). These pupils prepare

themselves "to be the valiant defenders of the Socialist Motherland in case of an aggression against her sacred borders."

In collaboration with the Young Communist League (*Komsomol*), the DOSAAF provides complete military training. In the *Elektrosila* plant in Leningrad, the workers pursue motorcycle riding, truck driving, and parachute jumping courses. They learn to shoot, to throw a hand grenade, to operate radio transmitters, and to entrench themselves.

The activities of the DOSAAF, in which are found officers, noncommissioned officers of the reserve, and technicians, include a campaign of propaganda with the population. The members train themselves in marching, in tactical exercises, and visit the military museum.

Certain local organizations have not yet grasped the importance of the DOSAAF, however. They consider that the successes of the economic plans and the pacific policy of the Soviet Union, render military training of but minor importance and even a matter that should be optional. "Such an idea gives birth to political unconcern and a meekness of spirit which lulls our people to sleep and hinders their vigilance. These things must not be tolerated." In the Ukraine alone, there are 4½ million young men following the course in physical education.

The Soviet review, *Patriot Rodiny*, gives the following data concerning the organization of the DOSAAF:

Basic organization.—Groups of factories, of *kolkhozy*, of *sovkhozy*, of agricultural machine parks, of public administrative bodies, of schools, of city wards, and of rural districts.

Secondary organization.—Federations of cities, districts, regions, and republics.

Superior organization.—National Congress which meets twice yearly. Its executive body is the Central Committee. This Congress elaborates the program of

activities. It is supported by a Revision Committee.

The Central Committee, appointed for 4 years, directs the ensemble of the activities. It holds a plenary session at least once a year. It regulates the details of the training of the members: courses, books, study clubs, publications, and sports competitions.

The Central Committee is authorized to enter into relations with foreign sports organizations. It audits the handling of funds and assigns awards and decorations.

It designates a board (Presidium) composed of a president, a vice-president, and several members.

The plenary sessions in the republics take place at least once every 4 years. The members of the Central Committee are appointed for 4 years and the members of the Revision Committee for 1 year.

The regional committees are charged with the material organization of the activity of the Association. They cannot, however, circulate posters or pamphlets without the agreement of the Central Committee.

In the basic group a general assembly must be held at least once every 3 months.

Altogether, the organization of the DOSAAF is divided into four categories: central organs, organs of the autonomous republics and regions, organs of the districts and cities, and basic organs.

To be a member of a committee, one must be 18 years old. "The DOSAAF," writes the author of the article, "ensures the fulfillment of the task which the Soviet people are honorbound to fulfill, namely, the preparation of the defense of our beloved Socialist Motherland."

Suvarov has said, "One does not seize possession of a fortress by merely marking time." The central idea of the leaders of the Soviet Army is that the Army must not stand still, but keep abreast of the

progress of military science, and deepen its knowledge.

Stalin said, "The whole of our people must be kept in a state of mobilization in the face of the danger of a military attack, in order that neither chance nor the plots of our external enemies can surprise us." In his order of the day of 1 May 1946 to the Armed Forces, Stalin stressed the thought that the defense of the peace can be realized only on the condition that, "the level of the military science and general education of the combatants and of the officers of the Army, of the Navy, and of the Air Force be raised. It is the duty of the Armed Forces of the Soviet Union to perfect themselves daily, on the basis of the experiences of war and the developments of military science and technique, in the military task devolving on them."

It is not strange that after these words had been spoken a reminder to augment their technical and political knowledge should have become an integral part of the orders of the day. "The task of our naval personnel," wrote Vice Admiral Kuznetsov in his order of the day of 23 February 1953, "is to perseveringly increase their military and technical knowledge, to take up the study of modern technique and armament, to increase the ranks of the elite (*otlichniki*), to increase their vigilance, and to heighten the military discipline and cohesion of the ranks."

Conclusion

It was Peter I who created the modern Soviet Army. His principles were handed down from generation to generation and attention was particularly called to certain of them on the eve of World War I.

Thus, the Russian Army, for 2 centuries, has based its thought on the ideas of Peter I. It has had, during this long period, leaders who distinguished themselves on various fields of battle, and reformers such as Marshal Miliutin. It has

known, also, periods of intellectual inertia, as have other armies. "During the course of our history, it has been the valor of our troops that has favored the intellectual inertia of our generals," wrote General Golovin in "The Military Efforts of Russia During the World War."

The Soviet Army adheres to the principles enunciated by Stalin, whom it regards as the successor of Peter I. In the order of the day issued on the occasion of the death of Generalissimo Stalin, Marshal Bulganin, Minister of War, wrote, "The entire history of the Soviet Army in its victories in the Civil War and the Great Patriotic War are linked with the name of Stalin. The realization of the brilliant plans of Stalin enabled the Soviet Army to destroy Fascist Germany and Imperialist Japan, to defend the freedom and the independence of our country, and to save the peoples of Europe and Asia from Fascist enslavement."

We may summarize the Stalinian principles as follows:

War must be total, conducted by the entire nation, and must be based on its military, economic, social, and intellectual potential.

The wars conducted by the peoples' democracies and waged in the name of national independence, are just. Imperialistic wars are unjust wars.

Without solid rear areas, it is impossible to conduct a war.

An army must not rest on its laurels, but must perfect itself continuously.

Patriotic education, at all levels, produces a strong nation.

The Soviet Army is an army of liberation, certain of enjoying the sympathy of the workers of the entire world.

Morale is a decisive factor, but it must not give rise to neglect of the factor of armament.

The Soviet military doctrine is based

on Marxism-Leninism. It is superior to that of the capitalistic countries.

The command must possess the spirit of decision and of initiative.

The Soviet Army is an army of a new type and is superior to the Western Armies.

The world is divided into two camps: the camp of peace headed by the Soviet Union with its Armed Forces, and the camp of the imperialistic warmongers.

The Soviet Union must be ready to reply to any attempted attack against her frontiers. Her Armed Forces must be ready and her people must be psychologically ready to defend their socialistic Motherland.

Soviet military thought, although very active and studious, is, nevertheless, limited by the ideas of Stalin and a bit saturated with the idea of its superiority. General von Schlieffen, Chief of Staff of the German Army, recommended to his officers, to *be*, rather than to *appear to be*. The Soviet generals do not follow this line of conduct. They underestimate the part played by the allies in World War II and ascribe to the Soviet Army, the most powerful in the world, a role in which there is no place for other partners.

Although the name of Stalin has been less mentioned since his death in the orders of the day, his shadow still hovers over the doctrine of the Soviet Armed Forces. Is this influence sufficient for limiting the studies of the doctors of military science (*doktor voyennyykh nauk*) who constitute the elite of the officers and for causing certain new factors to pass unnoticed to them? Or, on the contrary, is the Soviet military science, based on a strong national sentiment and communistic mysticism, destined to evolve? Only the future can provide the answer to this question.

Jungle Training Without Trees

Digested by the MILITARY REVIEW from an article by Major General S. H. W. C. Porter from an article in the "Australian Army Journal" July 1954.

THE best way to confound the student of jungle tactics is to take him into the middle of the jungle—preferably to the summit of a tree-clad hill. He will see as far as the next tree and, when you assure him that he is on high ground, he will look at you painfully and repeat the words of many an initiate to the jungle: "One bit of jungle looks as bad as another." He will be ripe for the adoption of all the freak theories which paint jungle warfare as something entirely different from "normal warfare." He will be ready to dump the principles of war as applied to tactics and strategy.

The only real hazard of the jungle to well-trained soldiers is a mental one. There are, of course, endless hazards for poorly trained soldiers.

It is important, therefore, to dispel the mental hazard at the outset, and to see jungle as it really is. This is best achieved by making the first experience of jungle a gaze at its perspective—by looking at a typical aerial photograph or a properly prepared cloth model and, next, by making a careful appreciation of the differences between jungle and the country which is loosely called "open country." Later, it will be safe to experience the blinding impact of the jungle itself without fear of witchcraft.

Armies which have developed their skill at arms, along with their arms and equipment, in the middle latitudes will find additional factors bearing upon application of the principles of war when operations in the hot, humid tropics are undertaken. Some of these factors will prove helpful, others will prove to be an exchange of advantages and disadvantages, and others will add to the list of hindrances which all armies experience everywhere.

The attitude toward operations in jungle should be one of helping oneself to the advantages of the circumstances and applying one's skills despite the added hindrances.

Although many commanders will not admit it, the constant application of military skills in country such as the middle latitudes produce tends to encourage automatic appreciation; and the unfamiliar factors of jungle, being unfamiliar, tend to upset the freedom of their deduction. For instance, high ground is sought, and courses of action deduced in relation to it, without thought as to why high ground is better than other ground as a place to attack or defend. In fact, it is not what high ground is, but what it enables us to do, that makes it of value. Add to high ground the additional factor of dense tree growth, however, and its value will alter so that the automatic acceptance of high ground as a place to attack or defend is not necessarily sound.

Jungle Strangeness

From the point of view of strategy, tropical countries differ very little from other countries. There are fewer capital assets of value to an army, perhaps, but there are ports, airfields, railways, roads, and coastlines. All these assets are hemmed in with profuse tree growth and other vegetation. Sometimes they are set in swamplands.

There are mountains, valleys, flats, rivers, and waterlogged tracts. There are no deserts, snowfields, or ice drifts. Men do not have to wear or carry heavy protective clothing, and sickness which is due to cold or lack of water is absent. There are numerous other sicknesses which are caused by jungle parasites, however; and

in addition, there is tropical lassitude.

So far we have merely exchanged advantages and disadvantages without discovering a really unfamiliar factor.

In the field of tactics, however, we are faced with more vegetation than we are used to, and we could be excused if we were to say that the difference between "open country" warfare and jungle warfare is a matter of trees. In jungle country, treeless patches are much rarer than copses in drier lands. This means that *mobility*; *cover from view* (ground and air); *fields of fire* (and cover from fire); and *communications* must be figured on unfamiliar scales.

Configuration of the ground which, in "open country," would assist in mastering these factors still assists; but the effect of vegetation is superimposed.

Any factor which assists in canceling the hindering effect of the vegetation is a valuable one indeed, but the same vegetation is a boon to the commander who seeks to confuse and surprise his enemy. The tree growth is a marvelous source of material for field works and, when troops have been trained in bivouac construction, shelter is not a problem.

A modest path becomes an important strategical feature, where the jungle is so thick that a tank can only move at the speed of the bulldozer which clears a path for it. A coastline, where supply and movement by sea is possible, may have the significance of a first-class highway. Infantry or special troops on foot become more speedy than scout cars during an approach.

Given time, we can move by bulldozer or landing craft, with all our equipment, almost anywhere. It is only a matter of reorientating our time and effort scales of movement.

But, when we get to where we are moving, how far will we see and how far will we shoot? What will determine our choice of objectives, in view of the superimposed effect of the profuse vegetation?

We have finally to get down to a study of vegetation.

Various Vegetation

If you look at a series of aerial photographs of jungle country, you will see that the vegetation appears "piebald." The tops of trees look like little balls of wool, the odd patches of kunai grass show out in a light, fine texture, and there are other patches which look more like stranded wool. With a little experience, palms, mangroves, and other tree growth may be distinguished. Plantations are easily distinguished.

The aerial photograph has provided a vital clue—jungle is classifiable into three primary types of vegetation: there are tall, substantial trees with interlocking canopies; fleshy growth with little wood but with a profusion of vines and light scrub; and there is kunai grass and swamp growth. For convenience, these have been known as "*high*" jungle, "*low*" jungle or secondary growth, and *grass and swamp*.

Low jungle and swamp growth provide obstacles to movement. Low jungle is so fleshy as to allow small arms fire to penetrate without deflection. Movement through it may be detected because a passage has either to be slashed or torn, and, in consequence, an observer may easily distinguish the disturbance of the foliage. Generally, there is no tree growth in a patch of low jungle, because of its choking density—so that observation over it may be obtained from the edge of a stand of high jungle by climbing a tree. The origin of patches of low jungle is to be found in soil conditions, or in the destruction of tree growth followed by rapid possession by this quick growing vegetation. Summing up, low jungle slows movement almost to nothing; it does not provide cover from fire; and it reveals a moving enemy, yet offers him no observation.

Under the interlocking canopies of *high jungle*, there is little growth except moss.

Movement between the substantial tree trunks is comparatively easy. Fields of view, although limited, are useful and may be improved with a little careful cutting. Cover from fire is useful. The timber edge is a distinguishing feature, and may be a landmark to be identified on a photograph. Troops have been able to memorize the shape of the edges of stands of high jungle, and to move along them with the same intelligence as they would move along a physical contour in open country. Summing up, high jungle offers relatively good cover from fire; restricted observation from the timber edge and through the aisles formed by the trunks; and movement through it is not difficult.

Although the demarcation between high and low jungle appears clear cut in the aerial photograph, it will be found sometime on the ground, although the timber edge is well defined, that there is not always a definite break in the two types of vegetation. Low jungle varies in intensity with the amount of sunlight it receives. That is, in the open it will be dense but within the high jungle this density is dependent upon the amount of sunlight which penetrates the canopy above it. Hence, low jungle may be encountered under the canopy of the high jungle for a short distance from the timber edge. It will not prevent identification of the timber edge. It is preferable to regard such jungle as the merging of high and low rather than as a fourth category of vegetation.

Kunai patches are easier to move through than are patches of low jungle, but the tall growth is dense and stifling. Movement is revealed by movement of the foliage. Small arms fire is deflected off its course but, in the hot, middle-of-the-day period, kunai will burn when fired upon by artillery using smoke shells.

From this brief study it will be seen that possession of the edge of a stand of high jungle gives advantages similar to

the advantages given by high ground in open country, or the edges of woods in wooded country.

If in open country high ground offers a field of view, a field of fire, some obstacle value, and defiladation, then high jungle offers similar advantages. The low jungle which often surrounds it, or the swamp lands, gives excellent obstacle value; and trunks and branches offer defiladation.

Fields of view and fire have to be prepared or improved by trimming lanes of view through both low and high jungle in such a fashion that they will not be of use to the enemy, and a fire plan may have to be prepared and operated as in night operations, with fixed lines featuring in a defensive plan.

All this jungle classification will become patent when actual terrain is studied purposefully. The result of the study will be as the lifting of a veil from the eyes of the soldier who is new to these conditions. It was not until soldiers recognized the fact that the jungle actually has tactical features, apart from ground formations, that they were able to apply their skills completely during World War II.

Examples of the added command of a situation which troops developed, when once they had learned to recognize the tactical significance of jungle texture, are to be found in the histories of operations at Sanananda Track and Finschaven in New Guinea. Whereas the flat country was thought to be just one stretch of featureless ground, it was found to contain tactically significant shapes formed by timber edges. These were used as directional aids for successive objectives. Each outline of a stand of high jungle was named—one memorable shape being that of the shape of the map of South America, and thus named accordingly.

It goes without saying that aerial photographs which show these shapes are es-

sential. The use of a stereoscope is also essential for careful planning. In fact, it is not too much to say that a stereoscopic reconnaissance has to replace a ground reconnaissance in jungle warfare. A ground reconnaissance is usually far beyond the capacity of a battalion commander during jungle operations.

Training Methods

It will be seen, therefore, that training in jungle tactics needs a technique based upon photograph study. Cloth model exercises must also provide exercise in appreciation of the special additional features which jungle growth superimposes upon ground. A well-made cloth model has the special advantage of being convertible to numerous patterns of jungle simply by interchanging sections or turning them around. Its construction should be so planned that the breaks in texture occur at the same distance from the edges of the

model on each section. This enables any two sections to be placed side by side so as to produce a continuous sweep of each texture. For training purposes it should be photographed and gridded, so that trainees may be exercised in working from photographs in relation to the model. It may be used in conjunction with radio to perfect control in the jungle when units are working in co-operation, using photographs and radio communication.

The sections which represent a coastline may be used with the sections representing an inland axis which is either a path or road.

Exercises on the model, interspersed with visits to a rain forest which has characteristics similar to the jungle, are useful; but, where the rain forest is not available, very useful training may be undertaken on the model, with a little dramatization.

India and Her Neighbors--A Geopolitical Interpretation

Digested from an article by C. S. Venkatachar in "The Journal of the United Service Institution" (India) April 1954.

FATES were indeed malevolent to the subject known by the German name of *Geopolitik*. For, no simple basic idea has been twisted and perverted from its original thought as geopolitics. Around the few basic principles of Mackinder has grown a mushroom of false ideas on history and human geography and a spurious literature on the subject of geopolitics. Mackinder is in no way responsible for such intellectual perversities. His perception centered mainly around two ideas. Geography, principally space and the strategic opportunities which physical geography conferred, was the pivot of history of a people or a race and manpower was a measure of physical and national strength of a country—both tremendous realities

shifting the balance in the constant duel between land power and sea power in favor of the former. Mackinder also seriously questioned the assumption of the *Islanders* of the inevitability of sea power, warning them that organization in space and of manpower by the *Continentalists* spelled the doom of the *Islanders* and their sea power, and what was more serious, the destruction of their democratic way of life.

These somewhat novel ideas of Mackinder attracted little attention in western Europe. European political thought was firmly rooted in the principle of the balance of power whose relation to the new perception of the balancing of areas and populations was not quite apparent. The west European mind was not unduly

obsessed by vastness of territory or teeming populations. Small European countries in the modern world held dominance and sway over large non-European territories and populations. There seemed little virtue in mere size and large backward populations. The western mind was saturated with the Hellenic-Roman culture. The greatness of the Greeks lay neither in space nor in numbers. Europe did not realize until the end of World War II that attack on the West would come from within Europe; the West always looked for counterattack from the East. It feared more the recovery of the Asian and other suppressed peoples than the quarrel among the Europeans in Europe.

Mackinder set out his principles from a west European foreground. He had the foresight to see the rivalry between the Teuton and the Slav. Teutonic Germany had no space in the center of Europe. Russia had a vast hinterland in Asia. If Russia and Germany were to combine, they would control a vast area, and as an Islander, Mackinder saw that the sea bases in western Europe would be threatened by the enormous power of the Continentals. Mackinder's proposition was that the Teuton and the Slav should be separated by interposing between them an effective barrier, a system of three Tier States which are at present included in the Soviet bloc—hence, his emphasis on space and his conception of Heartland. Viewed from the Asian foreground, space and population convey a different meaning. The geopolitical idea arises out of fear of aggression and of the exploitation of strategic ideas by unscrupulous organizers of society with a "ways and means" mind, whereas, at the Asian end the emphasis is on the advancement of civilization. Indeed, the history of China and India proves that the civilization of these two countries survived because of their space and population. Mackinder argued that the attack on the west and on the Medi-

terranean world was organized from the Heartland although conceding that the attack came from the vacant spaces which had no reservoir of manpower. He, however, did not appreciate the nature of the movement of the nomads in the vacancies of Asia and its relation to the civilization of India and China. His idea of the nomadic movement was one of aggression on the west.

The argument put forward here is that there are two main traffics in civilization in the history of the peoples of Europe and Asia. The first and the earlier of them is on land from east to west; the second and the modern one is mainly on sea from west to east, and the dividing line between these two traffics is the maritime age of Columbus and Vasco da Gama.

State of Neighbors

Let us for a moment treat all of Asia, Africa, and Europe as one land area and divide this huge space into four or five zones. India, China, and the islands of the Indies can be one zone; let us call it the *monsoon land*. There is a vast land area from the Pacific to the Baltic. It can be called the Eurasian land mass. Western Europe, the Mediterranean, and the adjacent islands appear from the Asiatic end as a promontory of this vast land mass. We may call it the European coastland. There is a land bridge between Asia and Africa which we may call Arabia or the Fertile Crescent. There is the desert region of the Saharas from the Atlantic to the Nile. Below the Saharas there is a vast continental area.

The *monsoon land* and the European coastland occupy only one-fifth of the total area of Asia, Africa, and Europe but contain four-fifths of the total world population—a matter of considerable significance. It means the rest of the area is very sparsely populated. This world of ours has vast vacant spaces, with an area of 12 million square miles and a popula-

tion of less than 30 million, or one-seventieth of the population of the globe. It is these vacancies girdling around the earth from the Sahara through Arabia to Central Asia and Siberia which constitute a major break in the social continuity of mankind. They have played a great role in the history and development of civilization of Asia. If you examine a map, you will notice that there is a region of vast forests from the north of Germany through the northern part of the Soviet Union extending to all of Siberia. Below the southern border of this forested area lies a vast open ground, a luscious prairie and as you move southward, the aridity increases and the grass becomes more sparse. This entire grassland, rich, and poor, is called Steppe by the geographers. The Steppe starts from the center of Europe, passes through the southern part of the Soviet Union and enters Asia through the gateway, namely, the gap between the Ural Mountains and the Caspian Sea. Then the grass zone bends south and continues eastward over the lower level of the Mongolian Upland. It then passes through Altai and Tian-Shan Mountains in a narrow gap with the Gobi Desert to the south of it and ends at the less-detached grasslands of a part of Manchuria. This is the longest open passage or corridor in the world. This passage faces India and China and has a system of the mightiest and the most massive barriers in the world. The large population of China and India lies around the eastern and southern slopes of these mighty barriers which include the Himalayas, the Tibetan Plateau, the Karakoram, the Hindukush, and the Tian-Shan. These barriers have deflected the traffic of civilization to India and China and the deflected traffics have found their way into China and India, in each case through two highways. The Mongolian Upland is lower than Tibet—and from that area one can reach the Province of

Kansu in China, and to the great city of Sian and the other directly southward from Lake Baikal to Peking. Similarly, in the case of India, these massive heights slope down to the Iranian Upland from which two passages lead to India, one through the Kabul Valley and the Khyber Pass to the Plains of the Punjab, and the other through the Bolan Gorge to the regions of the lower Indus.

This open passage is connected with the Sahara through the land bridge of Arabia. Part of it known as the Fertile Crescent has tracks of ancient fertility.

With the aid of physical geography, we are now in a position to follow the nature of India's contact with her neighbors. We may consider three factors of contact between India and her neighbors and they are: commerce, religion, and politics.

Commerce

A vast country with monsoon characteristics is bound to develop a peasant society and economy. The Greeks did not know China but Herodotus wrote that of all the countries the ancients knew, India had the largest population. Large areas with vast populations generally tend toward a self-sufficient economy. In such an economy, there is no great impulse for external trade except for the exchange of luxury articles. So in the premaritime age, commerce and trade were not the prime factors in establishing relations with the neighbors.

Religion

A remarkable feature of Indian civilization is that religion was never spread outside India with the help of the secular arm. It spread through the trade routes. The Mahayana form of Buddhism radiated its powerful influence from the northwest part of India through the Central Asian trade routes to China. The Hinayana form of Buddhism and the higher elements of Hinduism and art were carried across the

sea routes to Farther India and the Indies.

Politics

This term is not used to connote international relations in the modern sense. It would be more appropriate to indicate the phases of India's contact with the outer world. Along the course of the traffic from east to west, we may locate three centers of civilization, namely the Chinese, the Indian, and the Graeco-Roman world. But they were not neighbors in the geographical sense, although they had intermittent contacts. Their neighbors were the nomads and the barbarians. It is to the vacant spaces to which a reference has been made previously that we must look for the movements of the nomads. If we people the vacant open passage, call history to our aid, and follow their movements, we see then the politics of the three civilized regions in the premaritime age was determined by the physical geography of Asia and the historical dynamism in the open corridor.

Traffic in Civilization

From the dawn of history, the direction of the nomadic movement is from the Steppe to the Sown. In the prehistoric phase of the movement, Indo-European peoples are said to have wandered away from the Steppe to Iran, India, the Aegean, and Italy. In the same direction, the drift continued in the historical period up to the maritime age. Our knowledge about the nomads is meager but some material has been gathered by historians to attempt certain conclusions. From European, Chinese, and other sources, we know that the nomads under different names were the tenants of the open corridor. There is a stage in which the nomads were peaceful. At any rate, the civilized people do not hear anything about them. As a pastoral people, the nomads are mobile and their mobility is due to their taming of the horse in some remote period

of antiquity. On the grassy lands they follow the pastures and travel long distances. When they quarrel among themselves, sections of them get pushed along the passage. At other times, the ambitious among the nomads weld groups into a strong society and the nomadic region acquires power and movements are set on foot which affect the civilized or settled regions on the borderland of the nomads. On other occasions, a great ruler or leader rises whose actions and conquests spread beyond the confines of the seat of power of the nomads. When their activities are less warlike, the nomads come to agricultural areas as peaceful settlers and become absorbed in the local population. All these factors have come into operation in the movements of the nomads.

It would be convenient to view this traffic from the Chinese end. China always showed awareness of the existence of the nomads on her northern borders. A major event in the Chinese history is the prolonged duel with the northern barbarians. Chinese chronicles mention the Hsiang-Nu who harried the Chinese a great deal. These are no other than the Huns of European history, and the Hunas of Indian tradition. The Chinese knew also another branch of the nomads, the Yue-Chi who had been displaced by the Hsiang-Nu. From the 10th to the 12th century the Chinese were again very much harassed by the barbarians and their capital had to be shifted to the southern province of China. China took the weight of the attack of the Mongols over Europe by accepting Kublai Khan as the Emperor of China. These Mongols were overthrown after 90 years. The Manchus, again northern barbarians, displaced the Mings who had succeeded the Mongols.

The effect of these great activities of the Chinese civilization can be seen in certain events of Indian history. Yue-Chi, who had been displaced by Hsiang-Nu, pushed the people known as the Sakas who

had settled in the corridor somewhere between Iaxartes and Lake Issyk Kul and further displaced the Bactrian Greeks who were ruling in the areas to the north of the Hindu Kush with the result that the displaced Greeks moved on to the Kabul valley and from there figured for some time as the rulers of the West Punjab. The Sakas had to get around Herat and appeared in Baluchistan and Sind and later in Western India as the Indo-Scythians. The nomadic flood carried the streams of the Huns to the farthest extent. The Huns under their great leader Attila made a three-pronged attack of Europe and dealt a fatal blow to the Roman Empire. One of the streams of the Huns came to India and its leader was defeated. Another branch of Hiangu-Nu, called Asena, is referred to in Chinese chronicles as Turks, derived from a word meaning helmet and applied to a helmet-shaped mountain. These Turks figure in the Tang dynasty and Chinese diplomacy was busy in breaking up the solidarity of these barbarians. Although the vast empire of the Turks collapsed by 582 A.D., they again attain prominence in the history of Asia and Europe after the 10th century. Even such fragments of a few facts illuminate the transmission of impulses in the corridor traversing vast stretches of territory.

How did India respond to the movement of the nomads? Where the Chinese showed awareness and resorted to military and diplomatic measures, the Indian attitude seems to have been to tackle the problem as it arose, when the entrance to India was pierced and the nomads actually reached Indian territory. India, unfortunately, did not think dynamically of her frontiers. Physical barriers may be static but the minds of men behind them are not. It is the movement of men and ideas behind the barriers which matters. In the absence of pasture, the nomads could not wander about aimlessly on the

roof of the world. Physical geography to some extent was responsible for Indian complacency. The main direction of the flood of the movement of the nomads was through the Asiatic gateway to Europe. A portion of the stream descended cascade-like over the Iranian Upland into the Fertile Crescent. It was always a very small element which pierced the Hindu Kush and thrust into the Gangetic Valley. Nevertheless, the movement had been of sufficient frequency to have roused the consciousness of India. Alexander the Great established that once the Hindu Kush was crossed, passage to the plains of Punjab was possible unless there was a strong barrier in the north to overthrow the invader. The divide between the north-western plains of Hindustan and the Central Asian regions was the Hindu Kush Mountains. A movement to the north of Hindu Kush caused no seismic tremor in the plains of the Punjab. When the southern slope of the Hindu Kush was occupied, then the security of the northern Indian plains was definitely threatened. Indian civilization dealt with two types of nomadic movement. One is the folk migration of peaceful pastorals who were absorbed in the Hindu fold. The other established its political rule on the southern slopes of the Hindu Kush and penetrated into the Gangetic plain. Before the Islamic period, these nomads were either overthrown or they were thoroughly Indianized. The later Islamized Turkish marauders who founded their principalities in Delhi soon cut themselves away from the main traffic of civilization in Central Asia. They became local Indian rulers and the most illustrious of them, Babar and his descendants, attempted to establish a national state in India.

The nomads were people on the march. History wrongly represents them as world conquerors; they belonged to no state.

As long as nomadism existed, the gravitational pull was from the Steppe to

the Sown. The nomads had as much right to march into the cultivated agricultural areas as the Europeans in their transmarine movement to occupy the vacant spaces of the world. The nomads could not have been left in a state of perpetual motion and mobility. They had to be absorbed by the higher civilization or their societies transformed into civilized ones. India and China, with their ancient civilization and traditional societies, were cast into the role of the tamers and civilizers of the nomads. They were also the shock absorbers for nomadic eruptions. Thus, space and large population far from having an aggressive function were the historic contributors to the advancement of civilization.

This aspect has not received sufficient attention in the west and its inadequate appreciation has led to some misinformed generalizations of Asian history. The nomads did not set out to destroy the superior civilization of Rome. The barbarian attack would in any case gain weight and massiveness in its passage in the corridor—the full brunt of which was to be expected at its terminal end. The nomadic attack was not launched by any organized state; neither was it organized warfare. There was a collision of people leading to the coalescing of cultures. The Huns did not destroy the Roman Empire. The barbarians became part of it. Only the Roman mansion became an apartment house with some new and socially undesirable tenants. The Saracens in less than half a century overran the vacancies from Gibraltar to Transoxiana. It was as though an electric current had been switched off from a powerhouse in Arabia. The European mind long confused the movement of the nomads with the politics of Islam which aggressively and defiantly confronted western Christendom.

The onslaught of the nomads did not lead to the collapse of India and China. Modifications were no doubt made in their

internal social structure. The political shape of Europe was altered. The axis of power was shifted from the Mediterranean to the north. Unlike the land masses of China and India, the Mediterranean world was a small area and on its collapse it was politically fragmented. The people inhabiting the European coastland, to which the main energies of the European people were now shifted, felt a sense of confinement in a narrow space. For a long time they had to tolerate the barbarians. They had to struggle to save their nascent Christianity from the attacks of the infidels. The marshy lands of eastern and central Europe had to be drained and populated and here civilized life came later into existence. The Saracens, under the banner of Islam, stood poised on a strategic arc and held western Christendom at bay, and the Mongols delivered hammer blows on parts of Europe, the last of the great movements in the corridor. The pressure exerted on the rear, an unknown and uncharted sea in front, the need for trade and commerce and economic expansion—these in one way or another were responsible in releasing the hidden springs of energy of the western people which ultimately led to the extension of the power of the European countries over the seas.

Sea Power

The highway of traffic changed over from land to sea with the direction reversed from west to east. This traffic fell into two component parts. There was the movement of people across the seas in numbers larger than that of the nomads. It has been estimated that in the 19th century, nearly 40 million Europeans were transported across the seas, principally to the Americas. The other aspect is the organization of power on the seas. The Indian Ocean basin is a strategic theater for the organization of sea power. It has exterior and interior aspects. In strategic thinking both the exterior and interior

parts are complementary. Two special features of the Indian Ocean are organization of land power based on India and its protection from penetration or thrust by a hostile power by way of land from the north or from either side of the Indian Ocean—from the Middle East and the African Continent as well as from the Far East. In such a strategic conception, the neighbors of India acquired a new meaning. The historical neighbor state of India remained the same as in the premaritime age. Their power to extend their influence to India was nonexistent by the 18th century but they became potential threats to the safety of India for reasons which lay altogether outside Asia. Their neighborhood attained a new significance because of the rivalry of the European powers in Europe. "Except for the sake of Indian security," asks an English writer, "what interest would Great Britain have had in the Persian Gulf, Tibet, or Sinkiang, in all of whose affairs it began to intervene?" This is both perversion and inversion of history. British power had to be extended far beyond the borders of India in order to meet the threat from Europe into the Indian Ocean. To protect the maritime road to the ocean, India's neighbors had to be defended. The Empire had to be defended not on Indian but upon British needs in the west.

The first 2½ centuries of the contact of the west with Asia was not of much consequence. During this period the rival European powers were contending for the command of the seas and their trading activities had not penetrated deep into the interior of the Asian countries. Sea power was felt after the industrial revolution in Europe. Industrialization and democracy were both held in an explosive mixture in the container of nationalism. This development in Europe started acutely the rivalries among the European states in the 19th century and the duel

between the two parts of Europe—the east and the west.

East-West Europe Duel

The effect of the continental duel on the seas was not apparent and remained unnoticed throughout the 19th century. There was a particular reason for this. The development of naval power owed its initiative to England and to her favorable position as an island base. English imperialism accepted the new conception of several contending states. This allowed room for the balancing of different national interests. Balance of power was a major factor in international relations. England's maritime expansion was not based on the glorification of the state power but on individual initiative backed by political power. The exercise of sea power was, however, spectacular. It appeared to be awe-inspiring, all-pervasive, and inescapable. It could put on a "squeeze" over territories ranging from a petty desert Sheikdom to the Celestial Empire. It was ubiquitous. Great Britain used sea power in a very deft manner in close association with skilled diplomacy. Throughout the 19th century there were many wars in Europe and Asia directly as a result of the rivalries of European states. They were localized and a *cordon sanitaire* drawn so as to prevent conflict from penetrating into the strategic theaters which meant the oceanic regions. This localization of conflict among the European powers gave them added strength for the pursuit of their imperialistic activities in Asia and Africa. The pattern of the duel between sea and land power was established accordingly; it can be seen in action today. The two world wars were direct attempts to straddle sea power from land bases. Once such a move is made, the present organization of forces in the world leads immediately to a world-wide conflict.

Great Britain's sea power enveloped three quarters of the world thus preventing

all conflict on the waters. On the seas there was the effective voice of only one nation. A view from the oceanic side unfolded the nature of the duel on land. The ambition of Napoleon to unite Europe was the starting point of this duel. Napoleon tried to unite Europe from the west. He told his captors in Saint Helena: "I wanted to unite all peoples into one strong national body. When this was done, people could devote themselves to the realization of their dream. Then there would be no more vicissitudes to fear, for there would be one set of laws, one kind of opinion, one view, one interest—the interest of mankind." In this enterprise he was balked by Great Britain. She cut off France from her maritime communications with her overseas colonies which were seized; defeated the French Fleet at the Battle of Trafalgar; broke through the stranglehold of Napoleon by defeating him in Egypt; and finally she headed a continental alliance against Napoleon. The three countries of eastern Europe, namely, Russia, Austria, and Prussia had to be brought in to defeat the attempt of Napoleon to dominate Europe just as in the 20th century the New World had to be brought in to redress the balance in the Old.

After the defeat of Napoleon, the duel was taken up by east Europe. A place had to be found for Russia in the system of European balance of power if a civil war were to be avoided in Europe. Russia then started probing for strategical positions as a land power. In this career her European ally was Prussia before the latter united Germany into a powerful state. Three times Great Britain intervened in support of Turkey, not for any love for Turkey, but to contain Russia and prevent her from extending her power into the strategical theaters of the eastern Mediterranean and the Middle East. Whenever Russia's ambition was thwarted in Europe, her answer was a movement in the vast vacant spaces of Central Asia

and of Siberia. That was her answer to the challenge of the maritime powers. This also explains the development of two power lines emanating from Europe, one on land and the other on sea. The latter ran through the front door of the non-European world. Russian land power, which now penetrated the open corridor—for long the home of the nomads—passed through the back door of the Asian countries. The people at the front door were sensitive to the knocking of the intruder at the back door. All this was not quite so apparent in the 19th century, although England, because of her hold on India, was always jittery over the movement of the Cossack horsemen on the Steppe of Central Asia. The year 1878 marks a further stage in the accentuation of this duel, now taken up with greater strength and earnestness by Germany. Unlike Russia, Germany did not have a vast hinterland of space. She utilized her great skill in organization, technique of science, and industrialization in building up her manpower for the pursuit of her antagonism toward the west. Bismark's policy was to have a weakened west and an ineffective Russia so that Germany might exploit her strategic position in Central Europe. She twice attempted to overthrow the west with disastrous results to herself and to the world.

Land versus Sea Power

The duel between sea and land power and the duel between east and west Europe are both tremendous realities. In certain areas of the world, sea power has gone over to the defensive. Power organized over a vast land space exerts continuous pressure from its periphery on the marginal areas. As against it, sea power can only be selective since it operates on a rimland area which largely lies across the seas. The picture therefore we have is that the contests of the 19th century continues very much in the same form with the rivalries accentuated; pres-

sure exercised with greater aggressive-ness and the strategical ambitions pursued under the guise of ideological warfare.

History is replete with instances of the attempted outflanking of sea and land power, and the lessons of history cannot be ignored. The Persian Xerxes, the Carthaginian Hannibal, the Christian crusaders, and the European world conquerors of the 19th and 20th centuries—all attempted to outflank sea power. The Romans in the 1st and 2nd centuries A. D. and the Portuguese in the 15th century outflanked land power by the discovery of new trade routes in pursuit of economic power.

Heartland

Mackinder's concept of Heartland exercised an alluring influence over the Germans who derived their gospel of living space from it. For the purposes of strategical thinking of Heartland, Mackinder included "the Baltic Sea, the navigable Middle and Lower Danube, the Black Sea, Asia Minor, Armenia, Persia, Tibet, and Mongolia. Within it, therefore, were Brandenburg-Russia, Austria-Hungary, as well as Russia, a vast triple basis of manpower, which was lacking to the horse-riders of history." This area was not accessible to sea power. It could be organized into a great land fortress which would then make a bid for world power. He feared that from this area, all the sea bases would be occupied and a naval counterthrust organized against sea power. This would bring about the collapse of America which was only a small island in comparison to the greater world island consisting of the land areas of Europe, Asia, and Africa. As against this line of thought, three considerations may be put forward. First, Mackinder thinking in the maritime age, could not have brought to reckoning the potentialities of air power which he thought was an ally of land power. This is by no means conclusive. He had no prevision of the atomic

power. We cannot here venture into the relative balance of air power in the hands of either land power or sea power. All that can be said is that it is not the final and decisive ally of land power. Second, Mackinder perhaps overexaggerated the capacity of the landsman to organize naval power if he overran the land areas on the sea margins. Sea power is based on certain national characteristics and long tradition. It is not possible to imagine that any and every people on the land surface would become effective masters of this instrument of power. Third, there is the lesson of the old story of the fight between Goliath and David. Size may be very impressive but the contents of power are not always in proportion to size. Size alone will not confer an absolute superiority. Areas smaller in size may have other attributes—material, moral, and spiritual—which may tip the balance.

Space

This leads to a further consideration about space. Mackinder drew attention with perspicacity to the existence of the land vacancies. The question of space has to be viewed in relation to his own conception of Heartland. He pointed out very clearly the geographical perspective of Russia in Europe. If a line on the map were to be drawn from Leningrad eastward along the Upper Volga to the great bend of the river at Kazan and then southeast along the Middle Volga to the second great bend at Stalingrad and finally southeast along the lower Don River to Rosta and the Sea of Azov, we have an area in which live a great majority of the Russians. In the Siberian stretches, principally along the railway line, there are at least 20 million Russians settled as plowmen. In the various intervening vacancies live more millions. Our conception of the Soviet Union should be in relation to this geographical reality and it should not be unduly distended or mag-

nified
Asia.
worl
ing a
side.
the
Amer
to ag
ent d
such
cour
peop
Th
itself
evolu
and
area
the
were
than
of A
ital,
tradi
carri
the e
state
the
boar
out,
overs
the S
in th
powe
men
to be
of th
final

Co
politi
that
spirit
under

nified by calling in the huge vacancies of Asia. There are other vacancies in the world which also may come into reckoning although not at the present time. Outside the Eurasian vacancies there are the spaces of South Africa and South America. They yet await being subdued to agriculture and inhabited with the present density of population of tropical areas such as the Indies. They may sustain in course of time even a thousand million people.

The European perspective must adjust itself to large areas and populations. Its evolution has been through small areas and sparse populations. For example, the area of the Greek world, that is to say, the area where Greek thought and life were practiced was considerably smaller than England. The male adult population of Attica, of which Athens was the capital, was not more than 45,000. This tradition of the Graeco-Roman world was carried on by the city states of Italy. At the end of the medieval period, these city states were overshadowed by the rise of the nation states on the Atlantic seaboard. As Toynbee has recently pointed out, these European states have now been overshadowed by the rise of America and the Soviet Union. It is somewhat too late in the day to be afraid of space and manpower of different areas. The freedom of men and the freedom of nations will have to be controlled by the spirit of men; none of the physical factors are by themselves final and decisive.

Spirit of Europe

Consequently, a final view toward geopolitics will have to be approached from that of spirit of man. The split in the spirit of Europe is the most important underlying cause of the rivalries of the

western people. The chism in the European soul arose out of the split in the Latin Christianity of Rome. Western Christianity advanced the civilization of west Europe and parts of Central Europe; on the other hand, Russia took over the eastern Christianity of Byzantium. Western Europe after passing through a phase of pagan classical period and early Christianity renewed itself through such changes as Protestantism, Renaissance, and Enlightenment. No such corresponding change took place in the eastern parts of Europe. The medieval idea of world empire exercised a fascinating influence on Moscow and later on Germany. In Russia, the secular and spiritual empires were fused. State power in east Europe came to be based on military science, manpower, and knowledge of the technique of the manipulation of the deep cleavage in the soul of Europe. The split in the spirit of Europe, coincides with the geographical and hence, the strategical division of Europe between east and west. The result is that the east has denounced the cosmopolitan liberalism of the west, individualism, and rational approach to human problems. The east has tried to overthrow the west and it is this disturbing factor which has its repercussions over the entire globe. Europe will have to realize that the spirit of man is eternal and the civilization of India and China, although often accused of having neglected the material side of life, pinned its faith in the ultimate triumph of man's spirit. Europe will have to unite her divided soul and when she does that, the present conflict in the world will assume a sensible and meaningful proportion and dimension. Happen what may, the world will stubbornly refuse to balance itself on a mechanistic conception of space and population.

BOOKS OF INTEREST TO THE MILITARY READER

THE FLYING SAILOR. By Rear Admiral André Jubelin. 276 Pages. The British Book Centre, Inc., New York. \$3.50.

BY CAPT RALPH J. BAUM, *USN*

The Flying Sailor is an account of one man's exceptional efforts to fight for his country at a time when she needed many such men.

The story commences in Indochina in 1940, where the author and two compatriots planned and made a 10-hour escape flight to Malaya in a small single-engine training plane that was overloaded and powered by an engine that was "tired and leaking oil." This trip is described in detail and includes the primitive, but effective, means they used to refuel the plane twice in mid-air.

After the escape, the locale rapidly moves to England and is complete with vivid descriptions of the country and her people, particularly the members of the Royal Air Force, during a major war. The author's experiences are most interesting and readable. First, he was the commanding officer of the battleship *Courbet*, then a student and fighter pilot in the Royal Air Force, and later the commanding officer of the Free French Sloop *Savorgnam De Brazza* which had considerable success while on convoy duty as an anti-air and antisubmarine vessel.

Admiral Jubelin writes with ease and has the faculty for bringing the reader into intimate contact with him and with his associates.

WORLDS IN SPACE. By Martin Caidin. 212 Pages. Henry Holt & Co., New York. \$4.95.

BY MAJ JOHN N. HIGHLEY, *USAF*

The author starts with the history of rocket development and then proceeds to develop the means by which man will eventually travel into space. It is not a fantastic tale, but a basic scientific study of the issues facing the engineers, propulsion experts, physiologists, and psychologists who must solve the problems of intense heat, rapid acceleration, explosive decompression, and weightlessness before man will be able to travel the space highways.

Here is how we will progress from high altitude rockets, to robot satellites, to robot space ships, and finally to piloted space stations and space ships. Mr. Caidin is convinced that all of this will happen some day; in fact, he believes that the first steps may be accomplished in the next few decades. He is not optimistically ignoring the problems that lie before us, but feels that with continued effort they all will be slowly, but surely, solved.

This book will be of great interest to military strategists who are convinced of the ultimate value of satellites and space travel. For those who are frankly skeptical, it should change their way of thinking. In addition to presenting a complete picture of space and space travel, *Worlds in Space* is an exciting book and contains many interesting illustrations.

COMBAT ACTIONS IN KOREA: Infantry, Artillery and Armor. By Captain Russell A. Gugeler. 260 Pages. Combat Forces Press, Washington. \$5.00.

BY LT COL MARSHALL H. ARMOR, JR., *Arty*

Here, written in a light, informal style, is a fast-reading, graphic description of the conflict in Korea as witnessed from the foxhole, the tank turret, and the cannon breach.

Although Captain Gugeler's narrative is supplemented from official sources, it is essentially a compounded personal account of 20 combat actions as they were seen through the eyes of officers and men who were there, and as told or written to the author and others of the Office of the Chief of Military History.

It is a story of small units, and of the men who fought in them, from the chaos of first contact in July 1950, to the highly professional actions of 1951 and early 1952.

There is little of the big picture in *Combat Actions in Korea*, but there is, nevertheless, frequent indication as to why the plans well laid at higher headquarters—and others not so well laid—may sometimes go awry. The reasons for success or failure have, in most cases, been analyzed briefly at the end of the narrative accounts. The bases for these analytical discussions, Captain Gugeler explains in his Introduction, were comments furnished by the Infantry, Artillery, and Armored Schools. The author points out:

Too often when war breaks out situations develop that have not been foreseen by writers of military textbooks. Minor discrepancies quickly become apparent. And on all sides the cry is heard, 'Throw away the book!' As the war progresses and commanders accumulate experience there is soon a reverse swing to the book and the best units are those that follow the rules—modified to fit the particular situation.

THE PAINTED MEN. By T. C. Lethbridge. 208 Pages. The Philosophical Library, New York. \$6.00.

BY LT COL WALTER A. GUNTARP, *Inf*

The author seeks from archaeological, historical, and ethnological evidence to piece together a logical history of developments in Scotland and England during the period roughly embraced by the death of Christ and the Norman Invasion. Central characters in this work are the Picts, the "painted men" who successfully contained the Roman conquest of the British Isles to the southern half of the main island. These savage people are believed by the author to have been the Gaelic speaking rootstock of the Scotland of today and, indeed, much of England herself.

The work is frankly speculative to a substantial degree. It is based on archaeological evidence obtained through study of the ancient Brocks (vitrified forts) and "wheel houses" which still abound in Scotland and part of England. Buttressing the arguments supplied by these remnants of ancient Pictish culture is a logical correlation of fragmentary historical record, as well as a more modern type of evidence found in the Gaelic language and place names of present-day Scotland.

The military value of the book is secondary to its historical and archaeological worth. It does, however, bring out interesting military sidelights relative to the Roman rule of England, and dwells, in some detail, on the numerous coastal raids which were conducted by the Saxons, the Vikings, and the durable little "painted men" themselves.

THE IMPACT OF RUSSIAN CULTURE ON SOVIET COMMUNISM. By Dinko Tomasic. 287 Pages. The Free Press, Glencoe, Ill. \$4.50.

HARD GROUND. By D. R. Corbo, Jr. 99 Pages. Vantage Press, Inc., New York. \$2.75.

TYPHOON IN TOKYO. By Harry Emerson Wildes. 356 Pages. The Macmillan Co., New York. \$4.50.

By Lt COL GREY DRESSER, *Armor*

Typhoon in Tokyo is the story of the Occupation of Japan, its origin, personnel, philosophy, and its aftermaths—the greatest civilian overseas commitment ever undertaken by Americans.

"Through all the inevitable misunderstanding, distrust, and confusion of the Occupation a new Japan emerged." The author presents a frank appraisal of that accomplishment which makes startling, as well as enlightening, reading. He is eminently well qualified to make such an appraisal as he served as a visiting professor at Keio University, near Tokyo in 1927; was a regional specialist on Japan for the Office of War Information during the war; served during the Occupation of Japan as a member of the United States Government Section; and as a visiting professor in international relations at the Seishin Joshi Daigaku in Tokyo in 1952 and 1953.

This book will be of interest to the military reader; it should be fascinating for those who served in Japan.

ELECTRONICS FOR EVERYONE. By Monroe Upton. 370 Pages. Devin-Adair, New York. \$6.00.

By MAJ JEAN K. JONES, *USAF*

An informal and personal approach to understanding the basic principles of the electron at work, Mr. Upton's delightful book is aimed at the merchant, salesman, legislator, journalist, or professional man whose work touches upon electronics at some point. The book will give the reader a satisfying grasp of electronic theory in a painless, absorbing, layman's-eye view of the electron, electricity, radio, television, and radar.

Both a writer and electronics technician, Mr. Upton's book should be of value to the man who ought to know a little about electronics, but has not been able to face the job of learning.

NATO AND ITS PROSPECTS. By J. D. Warne. 110 Pages. Frederick A. Praeger, New York. \$3.00.

By Lt COL MITCHEL GOLDENTHAL, *CE*

This is an extremely well-written, comprehensive study and analysis of the North Atlantic Treaty Organization (NATO), the organization charged with the coordination of Western European defense. The author covers a most intricate and involved subject with relatively few words. By displaying a large store of pertinent historical information, and by estimating cleverly future trends, he presents his viewpoints in an exceptionally interesting manner.

His analysis of Soviet military power and discussion of the historical significance of the East-West cleavage are outstanding. He is well qualified to write on NATO, having been at United Nations Headquarters and, more recently, on General Gruenther's staff at Supreme Headquarters, Allied Powers, Europe.

THE INDIAN WARS OF THE WEST. By Paul I. Wellman. 484 Pages. Doubleday & Co., Inc., New York. \$5.00.

By MAJ JOHN J. EARLEY, *Inf*

The Indian Wars of the West is a reissue, in one volume, of *Death on the Prairie* and *Death in the Desert*, both works of major importance which richly deserved reissue. Here are documented accounts of all of the major campaigns, as well as the many forays and scuffles which took place between the white man and Indian—from the Sioux massacre in Minnesota in 1862 until the last Apache resistance ended with the surrender of Geronimo.

The son of a Cheyenne missionary, Mr. Wellman knew the Indian firsthand from an early age. He paints the white man's subjugation of the American Indian as "ruthless, savage, and almost always unjust." Although this is a part of American history of which we can be least proud, it is certainly the most interesting.